

Gladstone Regional Council
ABN 27 330 979 106

Invitation to Tender (ITT)

298-20 A01 Sewerage Pump Station Odour Control

Offers Close
2pm AEST, Tuesday, 28 July 2020

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SECTION 1. Invitation to Tender

1.1 Overview

1.1.1 Introduction to Gladstone Regional Council

Gladstone Regional Council (GRC) is a Queensland Local Government. The Gladstone Region, located in Central Queensland, is about 550 kilometres north of Brisbane, and covers 10,506 square kilometres with a population of about 62,000 people.

More information about the Gladstone Regional Council is available at the website:

<http://www.gladstone.qld.gov.au/>.

1.2 Description of Works

1.2.1 Brief Description of Works

GRC requires a suitably qualified Contractor to design and construct a mechanically ventilated Odour Control Unit (OCU) for the newly constructed A01 Sewerage Pump Station (SPS). Works include:

- Design;
- Fabrication;
- Supply;
- Installation; and
- Commissioning

1.2.2 Scope of Works

The Scope of Works is as set out in Section 2.

1.2.3 Pricing

Pricing will be on a Fixed Lump Sum Price with a Provisional Schedule of Rates

1.2.4 Subcontracting

Subcontracting is permitted for the Civil and Electrical portions of the scope of works subject to approval by GRC. All subcontracting will be in accordance with the contract conditions.

Details of intended subcontractors, sub-contracted work and details of proposed subcontract agreements must be included in 'Attachment 4.2 – Procurement Plan.xlsx' as part of the Tenderer's Offer.

1.3 Invitation Process

1.3.1 Closing Date and Time

Offers must be lodged by no later than:

Time: 2pm Australian Eastern Standard Time

Date: Tuesday 28 July 2020.

Should GRC decide to extend the closing date, it shall do so by public notice via LG Tender Box.

Tenders submitted after this time and date will not be considered.

1.3.2 How Offers are to be Submitted

Offers must be lodged electronically via LG Tender Box at www.lgtenderbox.com.au by closing date and time. Tenderers should allow enough time for tender lodgement including any time that may be required for problem analysis and resolution before the closing time.

No tender received by post, delivery, facsimile or email will be considered.

1.3.3 Tender Documents

The Tender Documents comprise:

- 1) This Invitation to Tender – Section 1;
- 2) Scope of Works and attachments – Section 2;
- 3) Contract including General Conditions (refer clause 1.3.8) – Section 3.
- 4) Tenderer's Offer Documents in the form of Section 4 together with supporting annexures;
- 5) Copies of minutes of briefing meeting, notices to tenderers or addenda issued by GRC during the invitation period; and
- 6) The LG Tender Box Forum.

1.3.4 Tenderer to Inform Itself

Prior to submitting a tender, the Tenderer must inform itself of all conditions relating to the Works by:

- 1) examining all information made available by GRC in the Tender Documents;
- 2) conducting its own investigations into the risks, contingencies and other circumstances which could affect the tender;
- 3) attending the Briefing Meeting referred to in clause 1.3.5; and
- 4) submitting questions to GRC.

Failure by the Tenderer to do any or all of the things required to be done under this clause will not relieve the Tenderer of its liability to perform all of its obligations under any contract made as a result of this Invitation to Tender.

Any enquiries by a Tenderer must be directed in writing via LG Tender Box Forum or by email to contracts@gladstone.qld.gov.au.

No questions will be accepted after 4pm on the Thursday before the Closing Date.

Any questions submitted by the Tenderer are submitted on the basis that GRC may circulate the questions and GRC's answers to all tenderers to ensure all tenderers have the same information.

1.3.5 Briefing Meeting

GRC will hold a briefing meeting and on-site inspection as follows:

Due to the Covid-19 pandemic, safety precautions including social distancing are to be implemented by everyone attending.

If you do not register your attendance you will not be allowed to enter site.

Date:	Tuesday 14 July 2020
Time:	10am
Place:	A01 SPS (corner of Lord and Chapple Street in Gladstone)
Attendance Requirements:	All personnel attending must wear hard hat, safety boots, long sleeve shirt and pants.

It is not mandatory for tenderers to attend the briefing meeting in order to submit an offer.

Only one person from each tendering team (who are involved in the preparation of the tender) will be allowed to attend the briefing meeting. Details of full names and contact details of attendees must be emailed to contracts@gladstone.qld.gov.au by 4pm 2 business days before the Briefing Meeting. Attendees will be required to sign in, as evidence of the tenderer's attendance at the briefing meeting.

The meeting will be minuted and the minutes uploaded as an addendum on LG Tenderbox and shall become part of the Tender Documents.

1.3.6 Inspection of Site During Tender Period

Inspection of site shall take place during the Briefing Meeting only. Tenderers are not to access or attempt to access any part of the site at any time without prior coordination with GRC. A Contractor who has made unauthorised access to the site/s will be disqualified from further participating in the tender process and that Contractor's offer will be excluded from the evaluation process.

1.3.7 Form of Offer

The Offer shall be submitted by completing all parts of Section 4 and attaching any required supporting material. Information transferred into another format or document shall be deemed non-conforming.

Tenderers should ensure submissions demonstrate capabilities and competitiveness of the Tenderer, supported by clear and concise examples.

The Offer must be signed by a duly authorised signatory of the Tenderer.

1.3.8 General Conditions of Contract

The Tenderer's Offer must allow for and be based on the provisions of Australian Standard Conditions of Contract for General conditions of contract for design and construct AS AS 4902—2000 together with the completed Parts A & E.

A copy of the general conditions is not attached but is deemed to constitute part of the Tender Documents. Copies are available from Standards Australia <https://www.standards.org.au/>.

1.3.9 Offer Validity Period

Offers must remain open and capable of being accepted by GRC for a minimum period of 180 days.

1.3.10 Indicative Timetable

The following indicative timetable is provided for information purposes only. Dates are indicative only and may be subject to change. GRC reserves the right to depart from the indicative timetable, including but not limited to altering dates or deleting or adding steps.

Invitation issued	4 July 2020
Briefing session	14 July 2020
Closing date and time for offers	28 July 2020
Evaluation of offers completed	11 August 2020
Negotiations with Tenderers and/or clarification of offers	12-13 August 2020
Proposed date for Council decision	8 September 2020
Intended notification dates	9 September 2020
Intended contract start date	September 2020
Intended Site Possession date	October 2020

1.3.11 Evaluation Criteria

GRC will carry out the tender assessment using information obtained from:

- 1) the Tender submission;
- 2) financial information provided by the Tenderer on request of GRC, and credit reference checks conducted by or on behalf of GRC;
- 3) knowledge relating to the Tenderer's past performance;
- 4) reference checks; and
- 5) other sources as decided by GRC in its absolute discretion.

The criteria against which each offer will be evaluated, and the weighting attached to each is as follows:

Criteria	Description	Weighting
Submitted Program		10%
Schedule Suitability	Proposed program meets GRC requirements.	

Program detail	The submitted program displays a suitable level of detail and includes all activities to be completed, including the required timeframes, milestones and critical paths.	
Project Understanding & Methodology		25%
Understanding of Scope of Works	Methodology demonstrate adequate planning and include specific details to support an understanding of the Scope of Works.	
Resource provision	Personnel/manpower requirements are described in detail with sufficient allocation to meet the requirements of the SoW and proposed program.	
Subcontractors/Suppliers	Project Procurement Plan and supporting information proposed is sufficiently detailed and demonstrates an adequate understanding of requirements.	
Major Machinery and equipment	Provision of a detailed list of project specific plant and equipment intended for use. Listed items are sufficient for completion of the works.	
Previous experience		25%
Past performance/Project history	Successful completion of a number of projects within the last five (5) years, which are of a similar scale and nature.	
Key Personnel (Allocation)	Key personnel are proposed with satisfactory allocation of time to the project.	
Key Personnel (Quality)	Key personnel hold appropriate qualifications and demonstrate a satisfactory level of relevant project experience.	
Price	Whole of Contract Pricing	30%
Local Preference (1)	Geographical Location (Vendor head/branch offices)	5%
Local Preference (2)	% of Locally sourced resources and products	5%
TOTAL		100%

1.3.12 Conformity of Tender and Alternative Tenders

To be a conforming tender the tender must:

- 1) be received by the Closing Date;
- 2) be received in the format and by the method prescribed in this Invitation to Tender;
- 3) satisfy the requirements of clause 1.3.7;
- 4) be open for not less than the period required under clause 1.3.9;
- 5) satisfy all mandatory requirements; and
- 6) respond to all parts of Section 4 in full and include all required supporting documentation.

A tenderer may submit alternative (non-conforming) proposals for consideration, but only in addition to a Conforming Tender.

1.3.13 Opening of Tenders

The opening of tenders will not be public. Tender lists will not be published, and all tenderers will be notified of the outcome following agreement being reached for appointment of a preferred tenderer.

1.4 Further Invitation to Tender Conditions

1.4.1 Definitions

“Closing Date” means the date and time specified in clause 1.3.1 of this Invitation to Tender or such later date as may be notified by GRC under clause 1.3.1;

“Conforming Tender” means a tender meeting the requirements of clause 1.3.11;

“Contract” means a contract to be formed with the successful tenderer as detailed in Section 3;

“Tenderer” means a company, partnership or person who submits an offer to GRC in response to this Invitation to Tender;

“Works” means the goods, services and deliverables referred to in section 2;

1.4.2 Tenderer acceptance

By submitting an offer, the Tenderer:

- 1) accepts the terms and conditions in this Invitation to Tender;
- 2) offers to enter into a contract with GRC to provide the goods, services and/or deliverables referred to in section 2 on the terms of the Contract and GRC may, in its discretion, choose whether to accept the offer during the validity period.

1.4.3 GRC Discretion

GRC may make any changes to the invitation process in its absolute discretion, by notifying Tenderers via LG Tender Box. Without limitation, GRC may:

- 1) add or change requirements;
- 2) amend dates including extend the closing date or time;
- 3) accept non-conforming tenders, alternative or innovative offers, offers in part or multiple offers;
- 4) reject any or all offers;
- 5) exercise discretion in evaluating any subjective evaluation criteria;
- 6) interview, negotiate or hold discussions with any Tenderer; and/or
- 7) cancel the invitation process.

1.4.4 Tenderer’s acknowledgement and warranty

The Tenderer acknowledges and agrees that the Tenderer:

- 1) is responsible for making its own investigation and assessment about all matters relevant to the Invitation to Offer and the Tenderer’s offer, including but not limited to risk, cost and contingency;
- 2) has not relied on any express or implied statement, warranty or representation made by GRC, its officers, employees, agents or advisers other than as expressly contained in the Tender Documents; and
- 3) is responsible for all costs and expenses related to the preparation and lodgement of its tender and GRC is not required to pay any compensation to the Tenderer in relation to the invitation process.

The Tenderer warrants that all information provided as part of its offer will be complete, accurate, current and not misleading.

1.4.5 Subject to Contract

No contract will be formed between the parties until both parties have signed a contract document in the form contained in Section 3 subject to any variations which may be agreed between GRC and the Tenderer.

Upon being notified of acceptance as preferred tenderer, the Tenderer must sign and return the Contract and any documentation required under the Contract within 10 business days.

1.4.6 Anti-competitive Conduct

The Tenderer warrants that neither the Tenderer nor its personnel have engaged in any collusive, anti-competitive or similar conduct in connection with the invitation process.

1.4.7 Disqualifying Conduct

A tenderer must not directly or indirectly seek to canvas support from any GRC Councillor or GRC employee. Any tenderer who seeks to do so shall be disqualified from further participating in the tender process and that tenderer's tender will be rejected.

A tenderer found to have accessed or attempted to access any part of the site at any time without prior coordination with GRC during the tendering period shall be disqualified from further participating in the tender process and that tenderer's tender will be rejected.

1.4.8 Conflict of Interest

The Tenderer warrants that the Tenderer and its personnel do not have any conflict of interest and will not place themselves into a position that may give rise to a conflict of interest, with the Tenderer's obligations under this Invitation to Tender or the proposed contract.

The Tenderer agrees to immediately notify GRC if any conflict of interest arises after the Tenderer's offer.

1.4.9 Confidentiality

All tenders become the property of GRC on submission.

The Tenderer should clearly label any information contained within the Tenderer's Offer which the Tenderer claims is confidential or commercial-in-confidence.

GRC will use its best endeavours to keep confidential all confidential information supplied by the Tenderer but may disclose confidential information:

- 1) to GRC personnel and Councillors and professional advisers and auditors for the purposes of the invitation, evaluation and contracting processes;
- 2) as required under the *Right to Information Act 2009*; and
- 3) as otherwise required by Law.

The Tenderer acknowledges that:

- 1) GRC is obliged to state in minutes of Council meeting the details of award of tenders, including naming the successful tenderer and contract price; and
- 2) under section 237 of the *Local Government Regulation 2012* GRC is required to publish on its website and a notice within GRC's offices relevant details of contracts awarded with a price of \$200,000 (ex GST) or more; and
- 3) the Tenderer's details will be published if the Tenderer is successful.

1.4.10 Protection of Privacy

The Tenderer warrants in respect of any personal information provided in its tender or any contract arising from the tender that the information is accurate, up to date and complete and that the individuals to which personal information refers authorise its collection and are aware that it is contained within the tender.

SECTION 2. Scope of Works

2.1 Brief Description of the Works

Gladstone Regional Council (GRC) requires a suitably qualified Contractor to design and construct a mechanically ventilated Odour Control Unit (OCU) for the newly constructed A01 Sewerage Pump Station (SPS). Works include:

- Design;
- Fabrication;
- Supply;
- Installation; and
- Commissioning

2.2 Background

A review of the existing A01 SPS OCU along with the gas phase H₂S and liquid phase sulphide sampling have been undertaken by a third-party Consultant to support the design of a new OCU.

The study confirmed that the new OCU should be suitably sized to be able to process 2000m³/hr (or 555L/s) of foul air from the new A01 SPS.

2.3 Function to be performed

The new OCU system shall be situated to the north of the new A01 SPS switch room and will extract foul air from the wet well headspace including the existing emergency overflow tank and treat it using a biofiltration system and an active carbon filter before discharging to the atmosphere via a vent stack.

2.4 Specification of Works to be carried out

The Works for the OCU include:

- Design;
- Fabrication;
- Supply;
- Assembly;
- Shop testing;
- Delivery to site (including unloading);
- Installation; and
- Commissioning.

The OCU shall include but not be limited to the following:

- Biofiltration unit complete with internals, packing media, support plates, liquid irrigation and demister;
- Biofiltration recirculation pump (if required);
- Biofiltration irrigation pipework and associated fittings;
- Biofiltration blowdown pipework and associated fittings;
- Biofiltration nutrient storage and dosing system (if required);
- Activated Carbon unit (if required to meet the performance requirements) including:
 - Media;
 - Support plate;
 - Support mesh;
 - Media loading hatches;
 - Access hatches; and
 - Carbon sample ports (including valves and threaded caps);

- Extraction fan downstream of AC unit (plus boxed spare);
- All Blowdown and Condensate pipework and associated fittings, to drain to the wet well;
- Stainless steel control panel with three-point locking system, installed and connected to the OCU;
- Twelve (12) months' supply of nutrients stored off-site in units <20kg capable of being handled by a single person with movement from the back of a utility vehicle (if nutrients applicable to the biofiltration system);
- Connection to existing wet well utilising the installed connection stubs;
- Provision of new 9m tall vent stack;
- All associated monitoring and control instrumentation – local controller and termination cabinet;
- All other inter-connecting pipework, ductwork, pipework and ductwork supports, valves, dampers and instrumentation associated with the operation of the odour control system;
- Extraction ductwork and isolation damper(s);
- Connection of relevant OCU components to associated off-slab services such as:
 - Water for irrigation/water make-up;
 - Wet well for blowdown;
 - Conduits to nearby switchboard; and
 - Other connections deemed necessary;
- Excavation and installation of a concrete slab for the OCU. Design of the OCU slab shall be undertaken by a suitably qualified Civil Engineer. GRC has undertaken a geotechnical investigation for the site and the investigation results and geotechnical report are attached '*Appendix E_ Geotechnical Report_A01 Site.pdf*'. All geotechnical and civil calculations and designs shall be supplied to the Superintendent for acceptance prior to civil works proceeding.
Note: Acceptance by Superintendent does not remove from the Contractors responsibility for proper design and construction of civil works; and
- Provision shall be made for the inclusion of 3 no. continuous H₂S logging instruments.
These will be located at the inlet, outlet and interstage.

The Works are also inclusive of the following, but not limited to:

- Layout drawings that show all equipment;
- Operation and maintenance manuals;
- Complete set of electrical drawings of the OCU and control panel showing all motor sizes and ratings. The control panel must have, as a minimum, interconnection terminals available for connection to GRC telemetry for the following; fan fault (current switch), fan running, fan auto, fan manual, as well as any other similar information for other components that may be installed as part of the OCU;
- A Hazards and Operability Study (HAZOP);
- Inspection and Test Plans (ITPs);
- Material Safety Data Sheets;
- Performance testing report; and
- Training of GRC staff.

2.4.1 Limit of Work

2.4.1.1 Electrical

The Contractor shall supply and install conduits and wiring from the OCU equipment to the Contractors supplied control panel.

The Contractor shall also supply and install conduits with draw wires / strings from the Contractors supplied control panel to the SPS Switchboard.

GRC shall supply and install all cables from the OCU control panel to the SPS switchboard.

As part of the detailed design, the Contractor shall determine if the existing Motor Control Centre (MCC) has sufficient space for the infrastructure that is required for this OCU.

2.4.1.2 Water

Water connection point shall be agreed in the detailed design; however, it is anticipated that the Contractor will extend the existing pipeline point at the emergency storage which feeds the well washers.

2.5 Design Services to be performed

The design services to be provided as part of the Works shall include the following components:

1. Development of concept designs;
2. Development of detailed designs; and
3. Development of 'For Construction' Drawings.

2.6 General Design and Installation Requirements

The Principal's intention is to carry out the upgrading works using the best available materials, workmanship and design standards to ensure the long term viability of the works with minimum life cycle costs. The design of the OCU shall:

- Be carried out in accordance with relevant Australian laws, codes, regulations and standards;
- Provide a safe operating work environment;
- Be reliable and robust;
- Minimise manual handling of plant equipment and/or chemicals where practical;
- Minimise confined spaces around the plant;
- Eliminate any areas that may be classified as Hazardous Areas;
- Be designed so that operators can carry out routine tasks without shutting down process units nor breaching licence conditions;
- Provide permanent access and lighting to all working areas where routine operational or maintenance work may need to be undertaken;
- Allow for all mechanical or electrical equipment, valving and pipework to be fully accessible with a minimum of 1000mm clearance for access and maintenance;
- Allow for all locations where sampling, inspection, calibration or adjustment needs to be carried out on a regular basis to be easily and safely accessible from floor or walkway or platform and to be positioned with consideration for human ergonomics;
- All stairways and platforms are to be provided for safe access to any elevated areas that require inspection, operation or maintenance;
- All process equipment to be provided with isolation devices (such as valves or penstocks) to allow safe servicing without interrupting the process;
- Pipework shall be designed to enable easy dismantling;
- Provide drainage for maintenance and cleaning.
- The use of specialized tools shall be minimised;
- Proven proprietary equipment and products shall be used
Note: Equipment and components shall be sourced from Australian Suppliers;
- Remote monitoring and control shall be enabled;
- Lifting and handling devices are to be provided for any equipment that requires lifting;
- Redundancy shall be provided for the critical equipment as specified; and
- Ensure that the new secondary treatment process can be relocated to alternative sites in future.

2.7 Design Process

2.7.1 Design and Design Review Process

The Contractor shall undertake detailed design and documentation including design reviews and safety in design workshops in accordance with the requirements of the:

- Queensland Work Health and Safety Act 2011;
- Work Health and Safety;
- Regulation 2011 and Workplace Health; and
- Safety Queensland Codes of Practice.

Design review shall be undertaken by the Contractor's designer, and the Principal's Representative shall be included in design review workshops and given opportunity to provide feedback on the Contractor's design.

2.7.2 Risk Elimination Through Design

During the Design Development, the Contractor shall address and minimise:

- Operational;
- Maintenance;
- Workplace health and safety; and
- Environmental

risks during the service life of the Works by eliminating risks in design. All aspects of the design including:

- Structural;
- Mechanical;
- Electrical; and
- Controls

are to be reviewed to ensure safety and prevention of damage to structures, equipment or environment under normal, breakdown and maintenance operation.

The Contractor shall seek to identify all material hazards and aim to eliminate those hazards during the design development and design phases.

2.7.3 Review and Workshops

The design review process has three elements:

- a) Internal quality control by the Contractor (or their sub contracted designer if appropriate);
- b) Review by the Principal (and relevant stakeholders or representatives) via submission of design documents; and
- c) Workshops.

Where workshops are required (as per the below) or advised by the Contractor as required in addition to these minimum requirements, the Contractor shall nominate a qualified facilitator for these meetings who will also be responsible for recording and distribution of the minutes of meeting. By default, these meetings will be held at GRC's offices in Calliope.

At the discretion of the Principal's Representative, it may be possible to combine Safety-In-Design/HAZID and HAZOP workshops provided sufficient time allowance is made for the review/feedback and update of drawings between Design Review meetings and HAZOPs.

NOTE:

- The above information shall be provided with the Contractors offer.
- All costs associated with the conduct of these meetings and workshops shall be borne by the Contractor and deemed to be included in the Contractor's tenders' cost.

2.7.4 Drawing Standards

All drawings required to address the complete design, construction and troubleshooting shall be

prepared and provided in accordance with the requirements of the relevant:

- GRC codes;
- Australian Standards;
- Good engineering drawing practice;
- Meet Queensland Work Health & Safety Regulations; and
- Meet Guidelines

in the latest revision and amendment. Where suitable Australian Standards are not applicable or appropriate, approved International Standards shall be used. Any Standards referenced shall form part of this Specification. Other Standards, Codes of Practice and Regulations not referred to, but which would be applicable to the:

- Design;
- Manufacture;
- Installation;
- Testing; or
- Commissioning

of the equipment or Works shall be deemed to be part of this Specification.

The following standards apply to design drawings, symbols and units:

- AS 1000 International system of units (SI) and its applications;
- AS 1100 Technical Drawings;
- AS 1102 Graphical Symbols for Electro technology, and
- AS 3702 Item Designation in Electro technology.

Standard size for drawings shall be A3. A logical set of drawing numbers shall be developed in consultation with the Principal's Representative. All drawings shall be clearly drawn to scale by competent draftspersons in AutoCAD.

One set of hardcopy documents and an electronic copy of the documentation and drawings shall be provided.

All drawings shall be submitted in AutoCAD and pdf format while all other documents shall be submitted in pdf format. Submissions shall be clearly marked "Issued for Review" and state the issue date and revision number.

2.7.5 Review Period for the Superintendent

It is not the intention of the Superintendent to accept or approve any drawings or design documentation. Any review shall be considered to mean only that the Superintendent has no objection to these proposals.

Notwithstanding any acceptance of documentation by the Superintendent, the Contractor shall always remain responsible for the adequacy of the drawings for construction and for the correct operation, performance, safety and design of the facilities, and for delivering up the works complete and correct in every detail.

Review, inspection or acceptance by the Superintendent of any proposal for executing the Works, including Drawings, Specifications or resources to be employed under the Contract shall not relieve the Contractor of his responsibility for any errors therein and shall not be regarded as an assumption of risks or liability by the Superintendent and the Contractor shall have no claim under the Contract on account of the failure or partial failure or inefficiency of any plan or method of work or material or equipment so approved or accepted.

The Contractor shall:

- Submit all documents for the Superintendent's review prior to construction and procurement;
- Allow twenty (20) working days for the review of the documents by the Superintendent and receipt of any comments; and
- Identify if any of the documents submitted are critical and require to be released earlier than twenty working days.

The Superintendent:

- Shall ensure that there is a progressive release of documents to the Contractor if there are critical documents within the submission; and
- May elect to transmit electronic copies of accepted drawings or drawings with comments back to the Contractor, or advice by correspondence in lieu of returning hardcopy drawings.

2.7.6 Specific Requirement for Submitted Drawings

The information shall be submitted, subject to any variance required by the Superintendent, shall typically include but not be limited to following drawings:

- a) Process Drawings;
- b) Layout and Sectional Plans, Civil and Structural Drawings;
- c) Layout and Sectional Plans, Mechanical Drawings;
- d) Electrical, Instrumentation and Control System Design Documents; and
- e) As-Constructed Drawings

The Contractor shall maintain an up-to-date "As-Constructed" record of the Works during manufacture and installation and shall afford the Superintendent access to all such information if requested by the Principal or Superintendent.

Copies of the marked up "As-Constructed" drawings shall be available on site at all times.

All the Contractor's drawings shall, after completion of construction, be updated by the Contractor to "As-Constructed" drawings and shall show in detail any changes from the Contractor's original or amended design drawings which have occurred following design and during construction.

This requirement also applies to all work supplied or constructed by Subcontractors. Where an 'As-Constructed' condition requires a drawing to be amended then all relating drawings influenced by this amendment shall similarly be amended. Buried items shall be measured prior to backfilling of excavation. The Contractor must provide all 'As-Constructed' Information to the Principal or the Superintendent.

The Contractor shall survey all work and drawing amendments required to prepare "As-Constructed" drawings to a licensed surveyor. Each "As-Constructed" drawing submitted for acceptance by the Superintendent shall be signed by the contract Surveyor with an appropriate certificate.

"As-Constructed" information shall be shown on the Contractor's design drawings in AutoCAD format. As-constructed changes shall be identified by clouding on the drawings. Drafting standards shall be equal to the standard of the base drawings. The drawings shall be clearly marked "As-Constructed" with the relevant date and signed and certified by the Contractor as being a true representation of the works as-constructed.

As Constructed drawings are to be submitted to the Superintendent for acceptance at least ten (10) working days before the Superintendent will issue a Certificate of Practical Completion. The Superintendent will review the "As Constructed" drawings and advise the Contractor within ten (10) working days from receipt of the drawings of the acceptance or otherwise of the drawings and any amendments that may be required. Any amended drawings shall be resubmitted for acceptance.

"As-Constructed drawings can be submitted to the Superintendent progressively but all "As-Constructed" drawings shall be submitted and approved by the Superintendent before Practical Completion.

Further to the requirements of the General Conditions of Contract regarding the Certificate of Practical Completion, the Contractor shall be required to provide final "As-Constructed" Drawings (and Operating and Maintenance Manuals) as a condition of issue of the Certificate of Practical Completion.

Note: All costs associated with meeting the above requirements in relation to "As-Constructed" drawings, notwithstanding that some amendments may have been required as the result of instructions issued by the Superintendent, shall be deemed to be included in the Offer Price.

Upon completion and acceptance of the "As-Constructed" drawings by the Superintendent in writing, one A3 sized "certified" copy and a digital copy of the drawings including all associated files in pdf and AutoCAD.dwg format shall be delivered to the Superintendent.

The Contractor may during the Defects Liability Period be called upon to further amend the "As-Constructed" drawings should it be found necessary for the Superintendent to order modifications to the Work. The Contractor shall be entitled to payment for this work on a time basis at current contract drafting rates and ruling plan printing charges unless the modification was necessary because of faulty or incorrect work or because the plant did not perform as specified in which case no additional payment shall be made.

2.7.7 Certification of Design

All items which are designed, shall be designed, checked or verified, and signed by a Registered Professional Engineer of Queensland (RPEQ). The Contractor shall maintain in their records a controlled hard copy set of "Issued for Construction" drawings signed by an RPEQ, or equivalent, in the category appropriate to the item being design checked or verified, prior to commencing construction on the associated works.

The copy shall include an original signature. This drawing shall be copied and provided to the Superintendent.

2.8 Specification of Goods to be supplied

2.8.1 General

Materials of construction shall be selected appropriately to the application and site environmental conditions (refer to *Appendix A Mechanical Ventilated Odour Control Unit - Data Sheet*) and to afford the stated design life from the effects of corrosion and wear with the required strength.

The design and fabrication of the vessel shall be completed generally in accordance with BS4994:CAT I.

Note: Any areas of non-compliance should be highlighted in writing.

All OCU materials and protection selected shall ensure a life expectancy of a minimum of 25 years, working 24 hours a day, and 365 days a year. Refer to minimum design life listed in Table 3.

The Contractor shall provide tags, labels, signs, and other markings that clearly define individual systems, hazards, warnings, and any other pertinent information in accordance with the requirements of the relevant standards, codes of practice and statutory authorities.

Painting and labelling shall in accordance with AS 1345 - Identification of the Contents of Pipes, Conduits and Ducts. Arrows shall be displayed on all pipes and ductwork to show the direction of flow.

All odour control plant and inter-connecting ductwork shall be installed outdoors without mechanical protection from sunlight and weather conditions and shall be surface protected. Surface treatment and colours shall be in accordance with the requirements of GRC.

The concentration of hydrogen sulphide released from any vent, stack, wall opening or other point sources, shall never exceed 1ppm. This is in addition to performance requirements as set out in the Performance Specification in Section 2.10.

The Contractor shall ensure all other equipment and sensors are provided to achieve control as required by design requirements.

Any process guarantee specified shall remain the responsibility of the Contractor

The Principal's Representative must approve all valves, dampers and instruments being proposed for these Works

All nuts, bolts, washers and spring washers that may come into contact with hydrogen sulphide, sulphuric acid and/or other corrosive substances shall be resistant to chemical attack. Grade 316 Stainless Steel or equivalent shall be used.

Gasket material shall be suitable for the duty and application.

Where dissimilar metals exist at any flanged joint or support, barriers between the dissimilar metals shall be installed (e.g. unicashion, fibre washers sleeves etc).

All electrical work shall be in accordance with AS/NZS 3000 (SAA Wiring Rules) and AS2008, the service rules of electricity distributor and relevant statutory authorities.

The control panel must be wired as per the wiring colours as detailed in GRC's Technical Specification (refer to *Section 2.9.3 table 4*).

All equipment that is exposed to the general public must be enclosed with an appropriate cover or enclosure that requires entry by lock or key to prevent un-authorised access and operation.

All above-ground equipment shall be mounted on a concrete slab provided by the Contractor. Prior to the commencement of fabrication, all drawings of the proposed installation shall be provided to the Principal's Representative for approval. The drawings shall show the layout of all the equipment within the OCU area and the location of power supply and services connection interface points, if applicable.

2.8.2 Ventilation Fan

The ventilation fan shall be 3 phase, 415V, industrial quality, direct driven, axial or centrifugal type, fixed on anti-vibration mountings. The fans shall be selected to achieve the lowest practicable absorbed power at the nominated operating conditions. The fan shall be constructed of Grade 316 Stainless Steel.

The fan shall be installed downstream of the last odour control unit and just upstream of the stack to ensure all odour control units are maintained under negative pressure.

Where available, all fan accessories (e.g. supporting fixtures, flexible connections, anti-vibration mounts, silencers, etc.) shall be from the original fan manufacturer. Flexible connections shall be lead-impregnated polyester material or equivalent.

The fan motor shall have non-overloading power characteristics. Fan and motor shall be selected such that they are capable of increasing the "as built" system flow rate by 10%.

The Contractor shall nominate in their tender how this increase in flow rate will be achieved.

For axial fans with in-line motors, terminal boxes external to fan casings and wired to fan motors shall be provided.

Fan bearings shall be oil or grease lubricated. Minimum rated fatigue life of bearings shall be 30,000 hours, suitable for horizontal mounting. Fan motor shall be provided with grease packed ball or ball-and-roller bearings designed for a minimum rated fatigue life of 30,000 hours under the duty of the fan. Dust seals shall be provided for all bearings.

Fan performance test curve with the operating point clearly indicated thereon, shall be provided for each fan and shall be incorporated in the Operation and Maintenance Manual.

The performance curves shall be based on tests carried out in accordance with AS 2936.

The fan shall be designed to ensure the noise emitted from any part of the system while it is in operation, does not exceed 40dB(A) under free field conditions measured at the site boundary or 5dB(A) above ambient levels whichever is less. If necessary, acoustic enclosures shall be provided to achieve the noise requirement.

Foul air fan material selection and performance shall be as stated on the *Appendix A Mechanical Ventilated Odour Control Unit - Data Sheet*

NOTE: The Contractor shall complete the *Appendix A Mechanical Ventilated Odour Control Unit - Data Sheet* and provide as part of the offer.

A boxed spare fan shall be provided for storage by GRC.

2.8.3 Biological Filter

The biological filter (either enclosed biofilter or biotrickling filter) unit shall be capable of continuously treating odorous air at >95% relative humidity at the specified flow rates.

The unit shall be designed to meet the required removal efficiency.

The unit shall be supplied with media and all auxiliary equipment required for full system operation.

The unit shall be complete with set of internals, recirculation pump (if required) and monitoring equipment.

The Contractor shall submit calculations to Principal's Representative substantiating the volume of media to meet the performance requirements.

The unit shall be designed structurally to withstand both the operating gas pressures (operating under a vacuum) as well as any other stresses that might be expected during loading and unloading of the internals.

A permanent access platform shall be provided to allow media removal and inspection.

2.8.4 Activated Carbon Filter

If an activated carbon filter is required to maintain the performance guarantees, the following shall apply. Note that even if an activated carbon filter is not deemed to be required by the Contractor to meet the performance guarantees, space and ducting interfaces should be provided downstream of the biological system to allow future retrofits if required. An optional fan upgrade to meet the additional pressure loss associated with the new activated carbon would also be required.

The activated carbon filter unit shall be capable of continuously treating odorous air at >95% relative humidity at the specified flow rates.

The unit shall be designed to meet the required removal efficiency. Outlet conditions for the clean air discharge shall meet discharge odorous gas limit concentration.

The activated carbon filter unit shall be supplied complete with activated carbon media and all auxiliary equipment required for full system operation. The activated carbon filter system shall consist of an activated carbon vessel, activated carbon media, and monitoring equipment. A permanent access platform shall be provided to allow media removal and inspection.

The activated carbon media may be impregnated with a suitable impregnate. The Contractor shall provide adsorption media data, showing adsorption characteristics for all listed contaminants.

The minimum activated carbon design bed life shall be twelve (12) months based on the stated average gas contaminant loading rate as calculated by the Contractor after biological treatment. The bed life is defined as the length of time between replacements of the activated carbon media based on breakthrough of gas contaminants above the required discharge level.

The foul air treated by the activated carbon filter unit shall have a minimum contact time of three (3) seconds with the carbon media (empty bed residence time).

Design of the activated carbon filter unit shall employ methods to prevent caking, solidifying and blooming of the impregnated activated carbon.

The activated carbon filter unit shall be designed structurally to withstand both the operating gas pressures (operating under a vacuum) as well as any other stresses that might be expected during loading and unloading of the media.

The activated carbon media shall be stocked and supplied by an Australian Supplier.

NOTE: The Contractor shall supply with their tender high level calculations showing the anticipated air contaminant concentrations leaving the biofilter to be treated by the activated carbon and also showing the calculations for activated carbon bed life. Detailed design calculations will form part of the Contractor's design deliverables and process guarantees.

2.8.5 Ductwork

The Contractor shall be required to provide all ductwork required for the operation and maintenance of the odour control unit. The Contractor shall confirm ductwork design negative pressure to ensure no ductwork deformation and to minimize ductwork vibration during operation.

Ductwork and ancillary equipment materials have been selected to account for exposure to moisture laden air stream containing gas contaminants, the effects of any residual condensate, and any adverse conditions associated with the location of the site.

- All new ductwork shall be manufactured from FRP, uPVC or 316 stainless steel and all seals shall be manufactured in appropriate materials suitable for this application;
- New ductwork shall be sized to limit ductwork velocities to no more than 10 m/s;
- Ductwork tees and wyes shall have a maximum angle of convergence/divergence of 45° and use a normal angle of convergence/divergence of 30° wherever practical;

- In general ductwork supports shall be provided at a maximum of 4M intervals unless the duct design can accommodate longer spans. In any event duct supports are required to limit duct sagging between supports to less than 3% of the duct diameter with the ducting carrying condensate in the ducting resulting from a blocked duct drain.
NOTE: The Contractor is to specify in their tender the anticipated depth of condensate in the ducting in the event of a blocked duct drain.
- Site modifications to ductwork must be undertaken to the standard of factory-finished products;
- Alignment of vessels and ducts to be within $\pm 10\text{mm}$ in all directions;
- All new ductwork will be laid above ground to falls (1:40 minimum) with automatic condensate traps or "Swan Neck" barometric loops at low points, discharging to the wet well. A single combined drain from the OCU slab to the wet well is permitted so long as discharges from various drain points cannot back flow into other parts of the OCU or activated carbon vessels. The drain line to the wet well is to be fitted with inspection / clean out hatches to be used in the event of drain blockages.

Within this document, references to the provision of ductwork include but are not limited to the following items:

- Ducting and associated bends, tees and other special fittings to complete all ducting routes;
- Isolation plates/spades;
- Condensate tapping complete with automatic draining and drain line at low points;
- Duct supports, saddles and clamps shall be manufactured to accommodate movement of ducts without scraping of the gel coat of FRP (if FRP is supplied) against the support;
- Expansion joints shall be included, if required, to cope with movement of ductwork;
- Suitable locations for measurement of flow and pressure in accordance with AS 4323.1 – 1995;
- Flexible connections between the OCU fan and the fan inlet and outlet ducting;
- Bolts, nuts and fittings relevant to the ducting, including bolts, flanges and gaskets for connection to covers (all nuts, bolts, washers, etc. shall be fabricated from 316 Stainless Steel);
- Flanged duct connections (as required); and
- All seals (as required)

2.8.6 Inlet Dampers

The use of air holes (or manual dampers) that are set on commissioning to achieve the design negative pressure at the extract rate at that time are not acceptable.

Weighted air inlet dampers (also known as barometric dampers) shall be used where an air inlet is required. The dampers shall be designed to maintain a static negative pressure under the covers of -25 Pa and be capable of varying open area if subjected to varying air flow conditions.

The damper opening mechanism shall be capable of adjustment so that the operating negative pressure can be adjusted in the range of -15Pa to -25Pa.

2.8.7 Isolation Dampers

Manual isolation dampers associated with the OCU are to be used to remove the biofilter vessel, the activated carbon vessel or the OCU fan from service. Isolation dampers shall also to be used to allow bypass flow around any out-of-service unit.

Unless specified otherwise, all isolation dampers shall be >98% isolating and shall be capable of sealing and opening against the dead head design pressure of the installed fan.

Isolation dampers shall be butterfly type. All isolation dampers shall be equipped with flanges for attaching to the ductwork. Isolation dampers shall be located for ease of access and operability from walkway/platform/ground level.

Shafts for mounting the blades shall be full-width encapsulated within the damper blade and supported on externally mounted, sealed-for-life ball bearings. Shaft sealing shall be achieved using Teflon or similar seals where the shaft passes through the damper body.

Sealing faces between blades and the damper body shall be neoprene or EPDM or similar and approved.

An indicator shall be provided so that the position of the damper blade can be identified from outside of the damper.

2.8.8 Access for Cleaning

Any areas of ductwork which has the potential to accumulate materials of any kind shall be provided with suitably located local access for duct internal inspection and cleaning. Ductwork shall be designed so that any liquid entering into or condensing within the ductwork can be easily and automatically drained to prevent accumulation.

2.8.9 Vent Stack

The air treated by the activated carbon filter unit shall be discharged via a 9M vent stack that shall be supplied and installed by the Contractor. Supply and installation shall include a separate vent stack footing (if required).

The vent stack shall comply with '*Ventshaft Guidelines and Technical Requirements – Sydney Water*' (available from the Sydney Water website).

2.8.10 Instrumentation and Controls

The Contractor shall supply and install all instrumentation to meet the functionality and treatment requirements of the OCU. As a minimum the following parameters shall be measured and reported locally:

- Pressure drop across the biofilter bed;
- Pressure drop across the activated carbon bed;
- Fan suction pressure;
- Clean air discharge flow switch;
- Liquid level in the biofilter sump (if applicable);
- Biofilter liquid recirculation rate and pressure (if applicable); and
- Provisional sum for continuous H2S monitoring at the inlet, outlet and interstage. This will be for monitoring purposes only.

Each instrument shall be clearly labelled with the:

- Manufacturer's name;
- Measured parameter;
- Model number;
- Serial number;
- Application operating parameters such as maximum pressure rating for in- line instruments, hazardous area certification details (where applicable); and
- Electrical power supply voltage, frequency and loading.

Each instrument shall also be provided with a stainless steel tag identification plate engraved with the instrument tag number. Each instrument shall be supplied with a NATA certified calibration certificate.

The system shall automatically power up after a power failure.

2.8.11 Hazardous Zoning

The Odour Control Fan and associated equipment are to be classified as specified in the table below.

NOTE: The Contractor must confirm this classification in their submission of tender.

Table 1: Zoning Classification

Plant Area	Zone Rating
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Odour Control Plant: Biofiltration and AC vessels, Fans & Ductwork (internal only)	Zone 2
Other areas	Nonhazardous

2.8.12 H₂S Instrumentation

For the inlet and interstage instruments - Electrochemical cell(s) shall be provided with a gas conditioning unit to ensure cell is operating within manufacturer guaranteed conditions. The gas conditioning unit shall not affect the concentration of hydrogen sulphide. The range shall be determined during detailed design.

For the outlet H₂S instrument – An analyser capable of reading accurately to 10ppb H₂S is required.

2.8.13 Control Interface

The Contractor shall provide at a minimum the following monitoring and control signals to the OCU's control panel:

Digital inputs from OCU panel to PLC/RTU

1. Fan in auto;
2. Fan in manual;
3. Fan fault (no current when fan is operating);
4. Fan running;
5. H₂S signal – Inlet;
6. H₂S signal – Interstage; and
7. H₂S signal – Outlet;

Digital outputs from PLC/RTU to OCU panel

1. Fan auto start command

The communications design shall interface with the SCADA design completed by SJ Electrical as part of the wet well design.

The Principal shall provide approval of all control and monitoring signals before proceeding with the construction of the OCU control panel and wiring of the OCU.

2.8.14 OCU Data Sheet

The Technical Data Sheet for the mechanically ventilated OCU is presented in an attachment to this Scope of Works document. Any deviation to the technical requirements for the system should be noted and returned to GRC as part of the tender submissions.

2.9 Technical Requirements

2.9.1 Relevant Standards

The selection, design and layout of the OCU shall satisfy all:

- QLD Government Regulations;
- Statutory Authorities;
- Australian Standards;
- Industry Standards; and
- Guidelines.

Standards and codes relevant to this installation include, but are not restricted to, the following:

Table 2: Relevant Standards

Standard no.	Description
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AS 1345	Identification of the Contents of Pipes, Conduits and Ducts.
BS4994.1987	Specification for design and construction of vessels and tanks in reinforced plastics (including vessel testing requirements)
AMSE/ANSI B16.5: 1996	Pipe Flanges and Flanged Fittings
AS4323.1-1995(R2014)	Stationary Source Emissions - Selection of Sampling Positions
AS4323.3:2001(R2014)	Stationary Source Emissions Determination of Odour Concentration by Dynamic Olfactometry

2.9.2 Design Life

All new equipment is to have a minimum design life as per Table 3. This includes replacement provided under this contract to replace existing equipment.

Table 3: Design Life Expectancy

Asset, Area or Item	Life Expectancy
Civil works (including pipe work and valves)	50 years
Structural Steelwork	50 years
Concrete Structures	50 years
Protective coatings on concrete structures	20 years
Stairs and platforms and similar metal works	25 years
FRP/GRP/Plastic tanks	20 years
Road work	20 years
Protective coatings on steel work	15 years
Mechanical equipment and piping	25 years
Electrical equipment	15 years
Instrumentation, PLC, SCADA and Telemetry equipment	10 years
Protective coatings on concrete structures	15 years
Membrane Liners	25 years

2.9.3 GRC Specification and Standards

GRC maintains several generic standards and specifications which are listed in Table 4. All equipment, materials and work shall comply with any relevant GRC standard.

Table 4: GRC Engineering Specifications

Doc. No.	Document Title
GRC-ES001	Electrical Work
GRC-ES002	Preferred Electrical Components
GRC-ES003	Prefabricated Electrical Switchboard
GRC-ES004	Motor Control Centres
GRC-ES005	Light and Power Distribution Boards
GRC-ES006	Field Control Panels
GRC-ES007	Controls Systems (PLC, HMI, RTU, SCADA)

GRC-ES008	Electrical and Valve Equipment Identification Labels
GRC-ES009	Prefabricated Communications Hut Specification
GRC-ES010	Communication Power System Specification
GRC-ES013	Fabrication Metalwork
GRC-ES015	Standard Construction Requirements
GRC-ES016	Standard Construction Requirements Sewer Pump Station
GRC-ES017	Polyethylene Pipe Welding Specifications
GRC-ES018	Standard Requirements for Corrosion Protection of SPS and Manholes
GRC-ES019	Electrical Generator Specifications

2.9.4 Capricorn Municipal Development Guidelines

GRC participates in the Capricorn Municipal Development Guidelines (CMDG) and as such relevant CMDG documentation also applies to the works. In particular standard details as appropriate should match CMDG standards.

CMDG documentation is available at <http://www.cmdg.com.au/Guidelines/GuidelinesHome.html>

2.9.5 Preferred Equipment

Where the contract specifications refer to preferred manufacturers and types for various items to be supplied, the Contractor shall ensure that the equipment shall be in accordance with the preferred equipment list.

Refer to separate list: GRC-ES002 Rev 2, Preferred Electrical Components.

Electrical and instrumentation equipment shall be in accordance with this list unless approved otherwise by the Superintendent. The Contractor shall submit full technical details to substantiate any request for consideration of alternative products.

For the purpose of tendering, prices for the preferred / conforming equipment must be included. Price variances for alternative equipment options should be clearly listed as part of the *Appendix A Mechanical Ventilated Odour Control Unit - Data Sheet*.

2.9.6 Operational Requirements

The design of the OCU shall meet the following operational performance requirements:

- The plant shall be designed for unattended operation and shall be fully automated;
- The plant shall be designed for complete remote monitoring and control of the system;
- The plant is to be designed for unattended operation without interruption;
- The plant shall be designed to comply with the service and design life and materials of construction included in this specification;
- The plant shall be designed to be compatible with an operator staffing competency consistent with a Certificate III in Sewage Treatment Plant Operations;
- The plant design shall provide an operator friendly working environment, including noise levels in working areas which do not require the use of hearing protection;
- The plant design shall ensure that normal operation and maintenance activities do not require entry to confined space or restricted space areas or working at heights requirements;
- All process units and equipment shall be designed to minimize splashing, misting;
- All equipment shall be of a proven proprietary design and suitable for sewage pump station environment; if requested evidence for the proven technology shall be provided;
- Confined spaces shall be minimized;

- The plant shall be designed to allow for routine maintenance activities to be carried out without the use of specialist lifting equipment;
- The plant shall be designed to allow for routine and non-routine maintenance to be performed by a maximum of two staff;
- The Contractor shall guarantee the offered equipment as being of proven technology and capability to meet its expected performance;
- The Contractor shall guarantee correct design, selection, procurement, construction, installation, commissioning and handover of all equipment that is capable of efficiently and satisfactorily performing all the duties specified or implied in the design and this specification;
- Mechanical power units and the drive mechanisms shall be located and mounted such that they are readily accessible for maintenance purposes;
- All equipment to be removable without emptying the structures or pipe work via double block and bleed;
- All equipment supplied shall have spare parts and lubricants readily available in Australia;
- Stairs, platforms, walkways, and access roads shall be designed to allow access to all areas around and between all mechanical and static equipment (including screens and hoods). Tripping hazards shall be eliminated or access provided over all low mounted mechanical equipment and/or pipework. Access under any elevated mechanical equipment or pipework shall be provided with minimum clearances as outlined elsewhere in this document;
- Where required, to prevent accidental contact with moving components or other hazards, inspection openings shall be guarded with welded stainless-steel safety mesh painted yellow; and
- The Contractor shall perform a risk assessment on the equipment being supplied in accordance with AS4024.1201.

2.10 Performance Specifications

At the agreed time, performance testing shall be undertaken to prove compliance with the rectification. If the compliance requirements are not met, the installation shall be determined as a fail and the contractor shall make good and re-test.

Table 5: Performance Test Requirements

No	Sample Point	Sample Type	Method	Compliance
1	Inlet to the odour control facility	Point Source	Logging instrument 0 to 100ppm H ₂ S	
2	Outlet from the biological filter	Point Source	Logging instrument 0 to 10ppm H ₂ S	H ₂ S <0.1ppm 95%ile
3	Outlet from the activated carbon filter (If provided)	Point Source	Logging instrument 0 to 10ppm H ₂ S	H ₂ S <0.1ppm 95%ile
4	Stack	Point Source AS4323.4	NATA accredited olfactometry lab with 2 samples per day for 3 days (6 samples total)	<500 ou 100%ile <200 ou 90%ile
5	Air Flow Rate	AS4323.1	NATA calibrated hot wire anemometer or pitot tube / manometer	Design flow -0% + 5%
6	Total System Pressure Drop		NATA calibrated manometer	Vendor guaranteed value +/- 5%

7	Pressure drop across biofilter bed		NATA calibrated manometer	Vendor guaranteed value +/- 5%
8	Pressure drop across activated carbon bed (if provided)		NATA calibrated manometer	Vendor guaranteed value +/- 5%

2.10.1 Testing & Commissioning

The OCU shall be tested in accordance with the testing regime shown in Table 5. The performance testing will take place during the warmer months of the year (October to March). The Contractor shall be responsible for correcting any defects arising from non-conformance with the requirements as nominated in this specification and in the attachment *Appendix A Mechanical Ventilated Odour Control Unit - Data Sheet*.

Tests and inspections, unless otherwise specified or accepted, shall be in accordance with the relevant standards of the Standards Association of Australia or in their absence, those of the British Standards Institution and American Society of Civil Engineers (ASCE) standards.

The commissioning shall demonstrate that all guaranteed performance criteria have been met for individual as well as the complete system during:

- Normal operating conditions;
- Extreme operating conditions, where possible;
- Fault conditions;
- Alarm conditions; and
- Power failure condition.

All tests referred to in this and other sections, unless otherwise specified, shall be carried out at the Contractors expense. GRC reserves the right to have its representative present at any or all of the tests for the purposes of observation, result verification, obtaining technical information or operator training. The Contractor, unless specified otherwise, shall advise GRC at least five (5) working days in advance of the time and location of all tests.

The design and testing of the OCU and activated carbon vessels shall be done generally in accordance with BS4994. Any non-compliance shall be advised to GRC in writing along with the proposed rectifications to be undertaken. The vessels shall be retested after any rectification work and a report provided.

The Contractor shall provide all necessary resources to enable effective testing including but not be limited to all necessary labour, materials, equipment and instruments. Additional staff shall be provided for testing for contingency purposes.

All relevant information and experiences gained during these tests, including readings such as flow, noise, odour, vibration, power draw, shall be integrated into the Operation and Maintenance Manuals, SOP's, UPG's and Work-As-Executed drawings, including P&I diagrams.

A representative nominated by GRC shall witness and sign all testing and commissioning checklists.

All data taken during each commissioning phase shall be recorded and used in the assessment of performance of that phase. All data obtained shall be recorded in an easily referenced manner and stored in a safe place. The vendor shall, on request from GRC, provide copies of any data or information, in a format to be agreed, within 24 hours. GRC shall have unhindered access as and when requested to examine the original records.

2.11 Site Preparation

Any preparation of the work site will be considered as part of the Scope of Works.

2.12 Construction Management

2.12.1 Site Works and Possession of Site

Possession of Site shall be given in accordance with the Contract.

The Contractor shall be the Principal Contractor on the site and allow uninterrupted access to be given to the Principal for operation of existing plant during the works under contract.

The Contractor shall confine its work to within the confines of the A01 SPS area boundary.

2.12.2 Site Establishment

Site establishment shall include the following:

- Transport of all personnel, plant, equipment and materials to and from the site;
- Establishment and removal of all site offices, sanitary facilities and the like including electrical, communications, water and sewerage services;
- Materials, equipment and plant lay-down and hard stand areas;
- Temporary fencing and site security;
- Any other works and activities required by the Contractor to establish and demobilise from site.

The Contractor's construction facilities shall be located within the site boundary only. Prior to establishment on site, the Contractor shall submit a written application identifying the proposed site facilities and proposed location of the site construction facilities for approval.

The storage of all materials required for construction shall be stored within the confines of the agreed compound. No other areas on the site shall be used for the storage of construction materials unless approved by the Superintendent.

The Contractor's compound shall be maintained in a neat and tidy fashion and regular mowing/trimming of the compound is required to keep the grass at a reasonable level.

2.12.3 Ownership and Responsibility

The operation of existing GRC facilities at the A01 SPS will continue to be undertaken by the GRC operations staff. It will be necessary for the Contractor to coordinate all activities with GRC operations and maintenance staff to ensure licence compliance and systems performance is maintained at all times.

2.12.4 Existing Site Services

Some existing site record drawings are provided (refer to *Appendix B Preliminary Layout.pdf*) which indicate the pipe runs and site services on the site and are provided for information only. No responsibility shall be taken by the Principal for the accuracy and correctness of this information.

The Contractor shall be responsible for determining the exact locations, dimensions of the existing structures, plant, equipment and services on site that may affect the Works onsite prior to commencement of construction including pot holing and additional topographic survey.

The Contractor shall take all responsibility for service locations and relocations and shall include in its scope of work allowances for disconnections, connections or diversions of services that may be required for the construction of the proposed works and the plant's operation.

All works associated with service disconnections, connections and relocations shall be carried out to the satisfaction of the appropriate authority.

The Contractor shall make good any damage to existing structures, plant, equipment and services. Any service interruptions will be planned and advance notice given to the Superintendent in order to minimise disturbance to existing users.

2.12.5 Contractor's Site Facilities

As a minimum, the Contractor shall provide and maintain the following site facilities:

- Site Office for the Contractor;
- Site water Supply;
- Sanitation facilities and sewage disposal;
- Site power supply;
- Waste management; and
- Telephone and other communication facilities.

2.12.6 Survey and Set-out

The Contractor shall be responsible for all survey and set out procedures necessary for the proper construction of the works. The survey works are to be undertaken by an accredited surveyor.

The Contractor shall take due care of all survey marks and property pegs in existence on the site. The Contractor shall be responsible for replacement of any property survey pegs (including line pegs), Permanent Survey Marks, or other survey marks indicated by the Superintendent, disturbed during construction of the works.

2.12.7 Nature of Ground

The Contractor shall be deemed to have judged the nature of the material to be excavated and to have made, due allowance in their Offer for excavation in material of whatever nature may be encountered.

The Contractor shall be solely responsible for obtaining all necessary or desirable information on the nature of the site and sub-surface for the purposes of preparing the Offer and the subsequent execution of the Contract.

Refer to '*Appendix D Geotechnical Investigation and Report.pdf*' conducted for the site.

2.12.8 Demobilisation

Demobilisation shall include the removal of all:

- Equipment;
- Offices;
- Workshops;
- Services;
- Temporary work areas; and
- Full reinstatement to the same standard as prior to Contract commencement.

The Contractor shall disconnect and remove all temporary electrical services and installations prior to demobilisation. Any other works and activities required by the Contractor to establish and demobilise from site.

2.13 Quality Management

The Contractor shall implement a Quality Management System under this Contract in accordance with the requirements of AS/NZS ISO 9001:2008. The Contractor shall comply with these requirements at all times throughout the contract period. The Contractor's Quality Management System shall be third party accredited.

2.13.1 Compliance Inspection and Testing

All compliance inspections and tests shall be based on work lots or work items unless otherwise specified in the contract documents.

All compliance testing shall be carried out by a NATA registered laboratory certified for the tests specified in this Contract.

The Contractor shall advise the Superintendent of the work lot or work item number and the location within the lot or item, prior to any testing of the lot or item.

The Contractor shall submit a Non-Conformance Report and the proposed corrective action for any nonconforming test result. For compliance inspections, the Contractor shall nominate responsible persons, who are not directly involved in performing the work.

The frequency of compliance testing shall be in accordance with the minimum requirements of the Contract Documents.

The Contractor shall submit to the Superintendent any preliminary results on compliance tests carried out for each work lot or work item with 24 hours of completion of tests.

Note: The costs for all such inspections and tests shall be borne by the Contractor and included in the Tender Sum.

2.13.2 Inspection and Test Plans

All materials, installations and workmanship included in the works of this Contract shall be tested and inspected to prove compliance with the Contract requirements.

All material testing for quality or compaction and any other tests performed under this Contract or at the request of the Superintendent shall be carried out by approved NATA registered laboratories. Original copies of test certificates shall at all times be available for inspection by the Superintendent onsite. Any test or measuring equipment used by the Contractor shall have been calibrated in accordance with the requirements of the Contractor's Quality Management System.

Records of calibration shall be available at site. Tests carried out by faulty equipment or equipment that has not been properly calibrated will not be accepted.

The cost of testing required under this Contract shall be borne by the Contractor.

An Inspection and Test Plan (ITP) shall be prepared by the Contractor and submitted to the Superintendent as part of the Project Management Plan (PMP). The Superintendent shall assess the ITP's suitability for use in the Work under the Contract and insert further detail, or any further hold points and witness points as required.

Where hold points or witness points submitted with the ITP's require the presence of the Superintendent or other Superintendent nominated person, then the Contractor shall give a minimum of 48 hours' notice before the inspection or test is required. Inspection and Test hold points shall be shown on the construction program.

2.13.3 Conformance Report

Conformance Reports shall be forwarded to the Superintendent for each designated work lot or work item, at the following project progress meeting for all work that can be reasonably provided before that meeting.

Conformance Reports shall include a verification statement certifying that the relevant work lots or work items have been inspected and/or tested in accordance with the Contractor's Inspection and Test Plan(s) applicable to this Contract and that they comply with the specified requirements of the Contract Documents. Conformance Reports shall be accompanied by the following documents:

- All relevant signed off Inspection and Test Plans and associated Checklists;
- NATA certified compliance test results (where applicable).

In cases where test results are not available within this period (e.g. 28 day concrete strengths), the Contractor shall submit preliminary results or previous analytical data of the same mix type which statistically indicates a high probability of conformance. Submission of such information does not absolve the Contractor from his responsibilities under this Contract should actual results subsequently identify non-conformance of the work lot or work item; and

- Survey and measurement compliance data (where applicable).

2.13.4 Rate of Progress and Progress Claims

The Contractor shall be responsible for:

- Programming;
- Progress reporting;
- Forecasting;
- updating; and
- Controlling.

If, for any reason the progress of the Works falls behind schedule or if progress is not being maintained to schedule at any stage of the Works which would affect the milestone dates including the commencement and completion dates set down in the Construction Programme, the Contractor shall, at its own initiative and expense, take measures to negate the effect of such delay.

Such measures may include (but are not exclusive to):

- Working overtime;
- Shift work;

- Using additional materials and/or labour; or
- Using different work methods.

The Contractor shall advise the Superintendent in writing of details and causes of possible delays and measures taken to rectify the delay within twenty (20) working days of receiving notification from the Superintendent.

Should the Contractor fail to initiate the necessary measures to negate the effect of any delay within twenty (20) working days of receiving notification from the Superintendent, then the Superintendent may direct the Contractor to take such measures as the Superintendent deems necessary and all related costs related shall be borne by the Contractor.

2.14 Deliverables

2.14.1 Documentation to be supplied by the Vendor

Prior to the commencement of fabrication, the Contractor shall provide to GRC, for approval, all drawings of the proposed installation. The drawings shall show the layout of all equipment within the OCU area and the location of the power supply and services connections.

The drawings shall include piping and instrumentation diagrams, electrical schematics and loop drawings in AutoCAD to GRC template standards. In addition, a fully detailed asset list shall also be provided for approval. The work shall not commence until approval has been received from Superintendent.

As part of this contract, the Contractor shall be required to provide, in addition to other documents described elsewhere, the documents listed in Table 6 below in electronic format.

Table 6: Documentation to be supplied

Description	With Tender	Design	For Construction	As Built
Program of works	√		√	
Piping and Instrumentation Diagrams		√		√
Electrical Schematics / Loop Drawings		√		√
Inspection and Test Plans			√	√
Equipment Schedules			√	√
Maintenance Schedules		√		√
Works Test Program & Procedures		√	√	
Certified Fan Performance Test Certificates			√	√
Operation and Maintenance Manuals for all control equipment and ancillary equipment		√		√
Schedule of critical spare parts, showing expected life, delivery lead time, unit cost, minimum stock and re-order levels	√			√
Filter Media Details	√	√		
General Arrangement drawings	√	√	√	√
Mechanical details		√	√	√
Structural details		√	√	√
Connection details	√	√	√	√
Instrumentation hook-up details		√		√
Parts lists				√
Termination diagrams		√		√
Installation Method Statements/Risk Assessment		√	√	

2.14.2 Fan Curves

Upon completion of commissioning of the OCU, the Contractor shall provide fan curves over the full range of operating duties to the Superintendent. The Contractor shall also provide all settings and print-outs on the calibrated instrumentation, e.g. flow switch, differential pressure transmitter, etc.

2.14.3 Operation and Maintenance Manuals

The Contractor shall provide operation and maintenance manuals, including Operation and Maintenance (O&M) manuals for all control equipment and ancillary equipment as supplied by the manufacturer.

Guidelines for O&M manuals compilation:

- A full description of the equipment type;
- Technical Data (supplied by the manufacturer):
 - Make;
 - Model;
 - Serial number; and
 - Size of the equipment.
- Principles of Operation including a basic working description, including novel features;
- Operating Instructions including step-by-step procedure on operation of the equipment supplied;
- Installation and Commissioning Instructions including details of:
 - Standard procedure;
 - Wiring;
 - Lubricating;
 - Mounting; and
 - Other information deemed necessary.
- Maintenance Plans including:
 - Preventive maintenance step-by-step procedure with clearly indicating the schedule (daily, weekly, annually);
 - Consumables;
 - spare parts; and
 - Supported by FMECA (Failure mode, effects and criticality analysis).
- Maintenance Plans including:
 - Verhaul / Major Periodic maintenance step-by-step procedure with details on consumables;
 - Spare parts; and
 - special tools required for this activity.
- Test Data and Inspection Test Results including FAT reports, etc.
- Parts listing and recommended spares including supported by FMECA (Failure mode, effects and criticality analysis).

2.14.4 Tools, Spares and Consumables

All special tools required to operate and maintain the equipment shall be supplied by the Contractor. Special tools shall be regarded as the tools that cannot be procured "over the counter" at the local hardware store.

Note: These special tools shall not be used for the erection of the Works and must be handed over in a completely new and unused condition.

A boxed spare fan shall be provided as part of this project.

Note: The Contractor shall, at the time of tendering, nominate a recommended list of spare parts and stock levels (inclusive of description, part number, supplier details, price, minimum stock and reorder level) suitable for 24 months continuous operation.

2.15 Site Possession Deliverables

Site possession is contingent on the following items being provided by the Contractor and approved by the Principal/Superintendent:

- Evidence of the required insurances being held:
 - Public Liability;
 - Workers Compensation;
 - Contract Works Insurance; and
 - Vehicle and Plant Insurance
- Project/Construction Safety Management Plan and supporting documentation as detailed in this Scope of Works;
- Environmental Management Plan and supporting documentation as detailed in this Scope of Works;
- Quality Management Plan and supporting documentation;
- Contractor's Security (Bank Guarantees); and
- Updated Project Program/Works Schedule (if applicable).

2.16 Delivery Dates

Indicative delivery dates for this work include:

Contract Award	September 2020
Site Possession Deliverables provided by Contractor	15 Days following Contract Award
Target Commencement of Works	September 2020
Detail Design and IFC Drawings Complete	October 2020
Target Site Possession of Works	November 2020
Delivery of long lead items on Site	December 2020
Target Completion Date	January 2021

2.17 Work Location

A01 SPS located at the corner of Lord and Chapple St., Gladstone.



2.18 Working Hours

Works on site should be completed during the below hours:

- Monday to Friday 6:00am – 6:00pm
- Saturday 8am – 12:00pm

Working hours are prohibited on Sundays and public holidays.

2.19 Work Health & Safety Requirements

Prior to Site Possession/commencement of the works, the Contractor shall be required to provide a Project Safety Management Plan to GRC. The Project Safety Management Plan shall, at a minimum, include the following components:

- Work Health and Safety Policy;
- PPE Policy/explanation;
- Risk or Hazard Management Process explanation;
- Incident Reporting and Investigation Process explanation;
- Worker Communication/Consultation Process explanation (for work, health and safety matters);
- Copies of licences, qualifications and tickets for work to be performed by all personnel;
- Risk Assessment templates for all work to be completed;
- Safe Work Method Statements (SWMS) for any High Risk Work to be completed;
- Management process for height safety equipment;
- Confined Space Entry Equipment Management Process;
- Confined Space Rescue Plan;
- Calibration and Inspection of Gas Test Monitors Evidence;
- Permit Systems/Procedures (for High Risk Works);
- Electrical Isolation Procedure;
- Traffic Management Plan;
- Maintenance Records for Plant & Equipment;
- Pre-start Checklists for Plant & Equipment;
- Health Monitoring for Schedule 14 Chemicals (WHS Regulation 2011);
- Subcontractor and/or Labour Hire Personnel Safety Management Process;
- Electrical Testing & Tagging Register;
- RCD (Safety Switch) Protection and Certification of Devices;
- Site Induction Plan; and
- Immunisation records for site personnel working in proximity to effluent (Hepatitis A, Hepatitis B and Q Fever).

The Contractor shall, if deemed necessary by GRC, amend the provided documentation until satisfactory of GRC. (For clarity, any review or comment provided by GRC does not affect or waive any obligation on the Contractor to comply with the Safety Laws).

2.19.1 Online Work Health and Safety System

GRC utilises Beakon software for the management of contractor safety. Throughout the term of the Contract, the Contractor is required to comply with all requirements of this software as directed by GRC.

The requirements of the Contractor include, but are not limited to:

1. Setting up profiles for all employees and subcontractors appointed to perform work under the Contract;
2. Uploading copies of qualifications, licences, tickets etc for individual employees and the business;

3. Uploading copies of Certificates of Currency for all insurance policies required under the contract;
4. Uploading replacement copies of all documents prior to or promptly upon expiry;
5. Ensuring employees complete all directed training and inductions directed by Council prior to mobilisation to site;
6. Ensuring data accuracy, completeness and currency at all times;
7. Attending to overdue actions with expedience; and
8. Maintaining the business, employee and subcontractor profiles as directed by Council, in a timely and efficient manner.

The Contractor employees are required to:

1. Complete all nominated training and inductions directed by GRC prior to mobilisation to site; and
2. Maintain current and accurate information relating to licences, tickets and qualifications.

If a Contractor, Contractor employee or subcontractor fails to maintain the required data, complete overdue actions and/or complete designated training and inductions, Council reserves the right to refuse or remove the subject parties from Council sites.

2.20 Environmental Requirements

Prior to Site Possession/commencement of the works, the Contractor shall be required to provide an Environmental Management Plan (EMP) to GRC. The EMP shall, at a minimum, include the following components:

- Air quality management;
- Erosion and sediment control plan;
- Incident and spill management procedures;
- Noise and vibration management plan;
- Re-fuelling and washdown procedures;
- Waste management plan; and
- Water management plan.

The Contractor shall, if deemed necessary by GRC, amend the provided documentation until satisfactory of GRC. (For clarity, any review or comment provided by GRC does not affect or waive any obligation on the Contractor to comply with the Environmental Laws).

2.21 Reporting Requirements

Throughout completion of the works, the Contractor must provide written reports weekly.

2.21.1 Weekly Reports

The Contractor shall provide the Principal and Superintendent with a report on a weekly basis, in such form and on such matters as the Principal or the Superintendent requires and which, without limitation, must include, as a minimum requirement:

- Percentage works complete (inception to date);
- Percentage works complete (during the reporting period);
- Status against program, outlining Contractor's position in reaching date for Practical Completion;
- Cost tracking against forecast;
- Risk Register or list of Key Risks Identified;
- Health and safety reports;
- Environmental reports;
- Quality reports;
- Activities completed in last period;

- Activities forecast for completion in the upcoming period;
- List of subcontractors engaged during last reporting period and forecast for upcoming period
- Schedule of Requests for Information (RFI) issued, including status of those open or closed
- Any relevant Industrial Relations matters;
- Variations submitted and status;
- Progress payment or invoicing status; and
- Progress Photos.

Weekly Reports shall be submitted by email by 4pm each Friday.

2.21.2 Safety or Environmental Incident Report

Within three (3) days of any safety or environmental incident or near miss, the Contractor must provide a report to Council. Such report must include, as a minimum, the following information:

- Complete details of the incident (including a map/plan/diagram);
- Actions taken;
- Details of the incident investigation;
- Recommendations or strategies implemented to prevent future incidents.

2.22 Site Meeting Requirements

Throughout completion of the works, the Contractor must attend fortnightly site meetings with GRC. The meetings are to include a tour of the site under escort of the Contractor.

Site Meeting attendance is mandatory for the below Contractor Personnel:

- Contractor's Representative or Project Manager (as appointed by the Contractor in writing); and
- Health and Safety Representative.

2.23 Other Work

From time to time during the implementation phase for this project it may be necessary for GRC and/or their Contractors to access the site for ad hoc operations and maintenance work.

2.24 Post Completion Support

. Please note that this support is considered not related to dealing with defects during the defects liability period.

- Training of GRC staff

Note: The following post completion support requirements must be factored into tendered price

2.25 Key Performance Indicators

The performance of the Contractor throughout execution of the works, and upon completion, will be measured against the below key performance indicators.

KPI	Description	Target
Quality	Quality level of goods and services delivered	98% compliance
Safety	Incident notification from the Contractor received by the Superintendent within two (2) hours	100% compliance
Safety	Safety Incident Report submitted to the	100% compliance

	Superintendent within three (3) days	
Safety	Number of lost time incidents during completion of project	Zero
Responsiveness	Lead time to respond to requests	24 hours
Productivity	Variation from original schedule and target dates without prior notification	Zero
Cost	Cost in accordance with contract	90% compliance
Financial Compliance	Invoices submit are compliant with contract terms and GRC requirements	100% compliance
Environmental	Incident notification from the Contractor received by the Superintendent within two (2) hours	100% compliance
Environmental	Environmental Incident Report submitted to the Superintendent within three (3) days	100% compliance
Contract Compliance	Show cause or default notices issued to Contractor	Zero

2.26 Attachments

The following attachments form part of the Scope of Works:

- Appendix A: Mechanical Ventilated Odour Control Unit – Data Sheet
- Appendix B: Preliminary Layout
- Appendix C: Site Photos (showing newly installed inlet and outlet duct connections)
- Appendix D: Geotechnical Investigation and Report
- Appendix E: Emergency Storage As-Constructed Survey

2.27 GRC Policies

The Contractor must comply with the following GRC Policies in the completion of the works:

- Asset Management Policy;
- Anti-Discrimination Policy;
- Anti-Harassment Policy;
- Building over or adjacent to Council Infrastructure;
- Code of Conduct;
- Community Engagement Policy;
- Corporate Environmental Policy;
- Cultural Diversity Policy;
- Drug and Alcohol Policy;
- Electrical Safety Policy;

- Fitness for Work Policy;
- Procurement Policy; and
- Work Health and Safety Policy.

Complete copies of these policies are available to the public on the GRC website at the following address: <https://www.gladstone.qld.gov.au/downloads/download/20/policies>

SECTION 3. Conditions of Contract

3.1 Contract Form

The engagement of Contractors for contract will be as per Australian Standard Conditions of Contract for General conditions of contract for design and construct AS 4902—2000, including attachments listed in Section 3.2.

A copy of the general conditions is not attached but is deemed to constitute part of the Tender Documents. Copies are available from Standards Australia <https://www.standards.org.au/>.

3.2 Attachments

The following attachments form part of the conditions of contract:

- Attachment 3.1 - Formal Instrument of Agreement
 - Attachment 3.2 - Part A Australian Standard Conditions of Contract for General conditions of contract for design and construct AS 4902—2000
 - Attachment 3.3 - Part E Australian Standard Conditions of Contract for Design and Construct AS 4902-2000
 - Attachment 3.4 – Bank Guarantee Requirements
-

SECTION 4. Tenderer's Offer

4.1 Tenderers Checklist and Authorisation

4.1.1 Important Submission Information

- 1) Checkboxes below **must** be marked to acknowledge/confirm agreement/inclusion.
- 2) Preference is for **ONE** zip file to be submitted
- 3) Files must be submitted in pdf format unless specified otherwise.
- 4) **DO NOT** submit folders or sub-folders with multiple documents
- 5) **DO NOT** submit entire WHS Policies/documents – ONLY submit files listed in Section 4.11.3).

A submission will be non-conforming if it fails to meet the requirements listed in 4.1.1

4.1.2 Conformance of Offer

Mark the applicable checkbox:

- This is a conforming offer as defined in Section 1.3.12 of the Invitation to Tender.
- This is a non-conforming offer, with proposed departures detailed in Section 4.15.

4.1.3 Checklist

Conforming Tender Submissions must include the following mandatory requirements (check boxes):

- Invitation to Tender Section 4** (this document) completed in full and signed below by an authorised representative of the Tenderer. Where information such as 'refer to attachment X' is entered, the submission will be deemed non-conforming.
- Attachment 1: Procurement Plan** ('Attachment 4.1 – Procurement Plan.xlsx') completed in full and attached in excel file format
- Attachment 2: ASIC Company Extract**
- Attachment 3: Branch Office Evidence** (if applicable in Section 4.5)
- Attachment 4: Financial Statements** (as per Section 4.6)
- Attachment 5 Third Party Accreditation Certificates** (as per Section 4.7)
- Attachment 6: Insurance Certificates of Currency** (as per Section 4.8)
- Attachment 7: Proposed Project Methodology** (as per Section 4.9)
- Attachment 8: Plant & Equipment List** (as per Section 4.9.1)
- Attachment 9: Proposed Site Construction Map** (as per Section 4.9.2)
- Attachment 10: Proposed Program** (as per Section 4.10)
- Attachment 11: Business Licences** (as per Sections 4.11.2)
- Attachment 12: Workplace Health & Safety (WHS) Documentation** (as per Section 4.11.3)
- Attachment 13: Resumes / Qualifications** (as per Section 4.18)
- Attachment 14: Pricing Schedule** ('Attachment 4.2 – Pricing Schedule.xlsx') and ('Attachment 4.3 – Additional work outside Scope of Work.xlsx') completed in full and attached in excel file format

Tender Submissions that do not include all of the above documents, completed in full, will be deemed non-conforming.

4.1.4 Tenderer's Acknowledgements

Confirm by marking the checkbox:

- The Tenderer acknowledges and agrees to Section 4.2 on the following page.
- The Tenderer declares their financial viability as per Section 4.3 on the following page.
- The Tenderer has completed a detailed inspection of the site during the Tender period.
- The individual submitting this Tender warrants that he or she is duly authorised to bind the party for whom he or she signs this Tender.

The Offer must be signed by a duly authorised signatory of the Tenderer. An unsigned Offer shall be deemed non-conforming.

Authorised by (Name & Position)	
---------------------------------	--

Signature & date	
Witness (Name)	
Witness Signature & date	

4.2 Tenderer's Acknowledgement

The Tenderer acknowledges and agrees that this Tender:

- 1) is for the price as set out in the Schedules;
- 2) is accurate, valid and remains open for acceptance by Gladstone Regional Council until the end of the Validity Period; and
- 3) has been compiled in accordance with the Conditions of Tender contained herein.

The Tenderer acknowledges and agrees that:

- 1) It has fully examined the Invitation to Tender and any other documents referenced or referred therein, and any other information made available by Gladstone Regional Council to Tenderers for the purposes of submitting a Tender;
- 2) It has made its own interpretations, deductions and conclusions from the information made available to it and accepts full responsibility for such;
- 3) It has considered all information relevant to the risks, contingencies and other circumstances having an influence on the responses in its Tender and which is obtainable by the making of reasonable inquiries;
- 4) It sought and examined all necessary information which is obtainable by making reasonable enquiries relevant to the risks and other circumstances having effect on its Tender;
- 5) It has read, taken appropriate advice on and fully understood this Invitation to Tender and its requirements, including the terms of contract detailed in Section 3;
- 6) In lodging its Tender, it did not rely on any express or implied statement, warranty or representation, whether oral, written, or otherwise made by or on behalf of Gladstone Regional Council, or its officers, employees, agents or advisers other than any statement, warranty or representation contained in this Invitation to Tender;
- 7) It satisfied itself as to the correctness and sufficiency of its Tender;
- 8) It is responsible for all costs and expenses related to:
 - a) the preparation and lodgement of its Tender;
 - b) any subsequent negotiation/interview;
 - c) any other action or response in relation to this Invitation to Tender.
- 9) It is not aware of any circumstances or relationships that constitute a conflict or potential conflict of interest in respect of this Invitation to Tender or the Tenderer's obligations if is selected. The Tenderer must state any circumstances or relationships which constitute a conflict or potential conflict of interest in respect of this Invitation to Tender;
- 10) It grants authority to Gladstone Regional Council to conduct such investigations of the financial standing of the Tenderer as Gladstone Regional Council deems necessary and reasonable for the purposes of conducting its evaluation of this Tender; and
- 11) In submitting its offer, the Tenderer agrees to be bound by the Conditions of the Invitation to Tender.

4.3 Tenderer's Declaration of Financial Viability

The Tenderer affirms that:

- 1) It is financially viable, solvent and can pay its debts as and when they become due;
- 2) They have sufficient financial resources to deliver the goods or services described in the Invitation to Tender (including fulfilling any guarantees or warranty claims);
- 3) They are not subject to any current or impending legal action (either formal proceedings or notification of legal action) which could impact on the financial viability of the Tenderer or the delivery of the goods or services; and

- 4) They have in place (or will have in place) insurance cover for the purposes of, and at the levels required, for the procurement.

4.4 Business Information

4.4.1 Contracting Entity Information

Business Name As it would appear on the contract	
ABN As it would appear on the contract	
ACN As it would appear on the contract	
Director/s of Company As listed on ASIC Company Extract	
Person to execute contract If not a Director, provide evidence of authorised contracting delegation	
Nominated Contact Person For contractual correspondence	
Nominated Contact Person Position	
Postal Address For contractual correspondence	
Phone Number/s For contractual correspondence	
email Address For contractual correspondence	
Subsidiary/Holding Company/ Parent Company/related entities Include ABN and/or ACN for each as well as any supporting information to explain the company/business structure	

4.5 Local Content

Head Office address: <i>This is the address listed on your ASIC Company Extract.</i>	
Head Office phone number/s <i>This is to be the main / general phone number</i>	
Website <i>This is to be the main website of the company</i>	
Branch office/workshop address: <i>If this is a residential address, please provide an explanation</i> NOTE: To qualify as a Branch Office in the Gladstone Region, Tenderer's must provide satisfactory evidence of a lease or title for the listed premises as an attachment titled 'Attachment 3 – Branch Office Evidence'	
How long has the business been established?	

How long has the business been established in the GRC area?	
Number of Employees residing in the Gladstone Regional Council area	
Number of Employees NOT residing in the Gladstone Regional Council area	
Please provide a statement detailing how this purchase would support the Gladstone Region economy.	

4.6 Tenderer Financial Information

4.6.1 Financial Statements

The Tenderer must supply Financial Statements (audited if possible) for the previous financial year as an attachment titled '*Attachment 4 – Financial Statements*'.

Financial Statements include:

- Profit/Loss Statement; **and**
- Balance Sheet

Financial Statements may be submitted in the form of an Annual Report if available.

For newly established companies that are unable to provide Financial Statements, the below documentation is required:

- Business Plan/s;
- Bank Statements for current liquidity;
- Any parent company or investor guarantee/s; and
- Financial statements of parent company or investor/s.

Submissions that do not include the required Tenderer Financial Information will be deemed non-conforming.

4.6.2 Financial Questionnaire

1) Is the Tenderer presently able to pay all its debts in full as and when they fall due?	<input type="checkbox"/> No	<input type="checkbox"/> Yes
2) Is the Tenderer and/or its subcontracted Providers / suppliers currently engaged, pending or threatened in litigation, arbitration, mediation, conciliation or other adjudication proceedings?	<input type="checkbox"/> No	<input type="checkbox"/> Yes <i>Include as an attachment titled 'Attachment 4 – Financials'</i>
3) Has the Tenderer in the past 3 years been involved in a dispute that has required litigation, arbitration, mediation, conciliation or other adjudication proceedings? If yes is given to either b) i) or ii) above, provide details outlining defendant, plaintiff, actions, monetary amounts, dates, outcomes and other relevant details.	<input type="checkbox"/> No	<input type="checkbox"/> Yes <i>Include as an attachment titled 'Attachment 4 – Financials'</i>
4) If the Tenderer is awarded the Contract, will it be able to fulfil the obligations of the Service Provider under the Contract from its own resources or from resources readily available to	<input type="checkbox"/> No	<input type="checkbox"/> Yes

it and remain able to pay all of its debts in full as and when they fall due?		
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4.7 Third Party Accreditations

In accordance with GRC's commitment to Quality Assurance, the Contractor must have in place in place the below accreditation and shall maintain this accreditation throughout the duration of the Works

Does the Organisation have AS/NZS 4801 or ISO45001 Safety Standard Certification	<input type="checkbox"/> No	<input type="checkbox"/> Yes	If Yes, provide a copy of the certification/s as an attachment titled ' <i>Attachment 5 – Third Party Accreditation Certificates</i> '.
Does the Company have ISO14001 Environmental Management Certification?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	
Does the Company have ISO9001 Quality Management Certification?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	

Submissions that do not include the required Third Party Accreditations will be deemed non-conforming.

4.8 Insurances

The Tenderer must supply copies of all certificates as an attachment titled 'Attachment 6 – Insurance Certificates of Currency'.

Professional Indemnity Insurance (Minimum \$5 Million per claim)	
Insurer	
Sum Insured	
Policy Expiry	

Public Liability Insurance (Minimum \$20 Million per claim)	
Insurer	
Sum Insured	
Policy Expiry	

Plant & Equipment Insurance	
Insurer	
Sum/Vehicles Insured	
Policy Expiry	

Workers Compensation Insurance	
Policy Expiry	

Submissions that do not include the required Insurance Information and corresponding Certificates of Currency will be deemed non-conforming.

4.9 Proposed Project Methodology

The tenderer shall detail (as an attachment titled 'Attachment 7 – Proposed Project Methodology') the 'Proposed Project Methodology'. This must address, at a minimum:

- Describe the pre-planning and organising of the works before Possession of the Site.
- How will the Scope of Works be achieved (Design and Construct components);
- How will the flow rate be achieved for the ventilation fan?
- Specify the anticipated depth of condensate in the ducting in the event of a blocked duct drain.
- Provide high level calculations showing the anticipated air contaminant concentrations leaving the biofilter to be treated by the activated carbon and also showing the calculations for activated carbon bed life.
- Nominate a recommended list of spare parts and stock levels (inclusive of description, part number, supplier details, price, minimum stock and reorder level) suitable for 24 months continuous operation.
- Describe the proposed staging / sequencing of the design and construction.
- Confirm the hazardous zoning classification.
- How will training for the GRC be provided?
- Detail any early procurement activities to be undertaken.
- Provide details around the number of personnel that will be onsite for each stage.
- General and critical activities including any long lead-times for supplies/equipment.
- Detail engagement/staging of proposed subcontracted works.
- What approach will be taken for traffic management?
- What contingency measures or back up resourcing are available in respect to personnel, plant and equipment?
- Give a general overview in cultural behaviour to the safety and environmental obligations
- Describe the management approach to the completion and handover obligations
- Describe proposed SCADA integration process and requirements.

4.9.1 Plant and Equipment

Provide (as an attachment titled *Attachment 8 – Plant & Equipment List*) a list of plant and equipment to be utilised for specific tasks. This is to include as minimum:

- The plant and/or equipment to be used for the specific tasks;
- What the plant and/or equipment will be used for;
- Duration of plant and/or equipment to be onsite;
- Is the plant and/or equipment hired or owned; and
- When plant and/or equipment is serviced and last serviced.

4.9.2 Proposed Site Construction Map

Provide (as an attachment titled *Attachment 9 - Proposed Site Construction Map*) a proposed Site Construction Map, showing:

- Perimeter hoarding;
- Construction access routes or traffic management plan;
- Site amenities (office, ablutions, crib, first aid etc);
- Unloading and storage zone;
- Stockpiling areas;
- Vehicle parking for workers; and
- Other applicable items.

Submissions that do not include a Proposed Project Methodology will be deemed non-conforming.

4.10 Program (Timeline)

A Proposed Program (e.g. Gantt Timeline) must be included as an attachment titled '*Attachment 10 – Proposed Program*' to the Tenderer's Offer.

The Proposed Program must show the dates by which, or the times within which, the various stages of the Works under the Contract are to be carried out or completed. The Proposed Project Program must include, but is not limited to:

- Commencement and completion date
- Preliminary and detailed design activities;
- Procurement of equipment activities;
- Preparation/mobilisation activities;
- Authority approval processes;
- Construction activities;
- Personnel on site;
- Commissioning and performance testing activities;
- Critical path;
- Completion activities; and
- Date or timeframe for Practical Completion.

Submissions that do not include a Program will be deemed non-conforming.

4.11 Work Health, Safety and Environment

4.11.1 Questionnaire

These questions refer to the obligations of the company and individuals under the Work Health and Safety Act 2011 as well as the Mining and Quarrying Safety and Health Act 1999.

<p>1. Has the company ever been issued:</p> <ul style="list-style-type: none"> • an improvement notice; • a prohibition notice; • a directive; or • an instruction to complete an incident investigation? 	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<p>If Yes, provide details of the subsequent action/s taken to improve.</p>
<p>2. Has the company ever been charged or convicted of an offence under the above legislation?</p>	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<p>If Yes, provide details of the notice as well as subsequent action taken to improve.</p>
<p>3. Have any of the Key Personnel nominated in this offer, or any company Directors, ever been involved with:</p> <ul style="list-style-type: none"> • an improvement notice; • a prohibition notice; • a directive; or • an instruction to complete an incident investigation? 	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<p>If Yes, provide details of the subsequent action/s taken to improve.</p>
<p>4. What is the current Lost Time Injury (LTI) Rate for the Business?</p>			<p>Provide further information related to the LTI Rate if desired.</p>

4.11.2 Licences / Permits

<p>1. Does the company have all relevant licences, qualifications and tickets to perform the Scope of Works?</p>	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<p>If Yes, provide evidence of Business licences/qualifications as an attachment titled <i>Attachment 11 – Business Licences</i>.</p> <p>If No, provide details of your intent in regard to meeting licencing requirements:</p>
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2. Will Traffic Management works be subcontracted?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	If Yes, the subcontracted company is required to hold Traffic Management Company Registration.
			If No, include evidence of Traffic Management Company Registration as an attachment titled <i>Attachment 11 – Business Licences - Traffic</i>
Provide a list of any relevant Licences held by the Business relating to these works			
Provide a list of Licences and Permits that employees and/or subcontractors will require for the completion of the works E.g. Scaffolding, Dogging and Rigging, Crane and Hoist Operation, Forklift Operation, Working at Heights, Confine Space and Electrical Licence			
<p>NOTE: Contractors and subcontractors are required to hold an Aqua Card if work is to be completed on or around GRC water or wastewater assets. For more information visit: https://watertraining.com.au/</p>			

4.11.3 Supporting documents required

As evidence of the implementation of a Safety Management System within the organisation, please provide as attachments copies of the below documents:

- Completed risk assessments (max. three) for comparable works completed in the past 12 months (**completed and signed by employees carrying out the task**) as an attachment titled *Attachment 12 – WHS – Risk Assessments*; and
- Completed Safe Work Method Statements (max. three) for comparable works completed in the past 12 months (**completed and signed by employees carrying out the task**) as an attachment titled *Attachment 12 – WHS – SWMS*.

Submissions that do not include copies of the WHS supporting documents (completed and signed by employees carrying out the task**) will be deemed non-conforming.**

4.12 Work Health & Safety: Demonstration of Understanding

The tenderer shall complete the below 'Demonstration of Understanding' in relation to their work health, safety and environment obligations relating to the Scope of Works.

Submissions that do not have the following tables completed in full will be deemed non-conforming. Tables completed with 'refer to attachment X' or similar will be found non-conforming.

4.12.1 Key Safety Risks Identified	
<i>Add rows as required to address the key safety risks identified</i>	
Risk Identified	Proposed Control Measures

4.12.2 Safe Work Method Statements	
Provide a list of the SWMS that will be implemented for the works	

4.12.3 Risk Assessments	
Provide a list of the safety Risk Assessment standards that will be utilised by employees on site in completion of the works	

4.12.4 Work Health and Safety Systems in the Business	
Provide a list of other Business WHS policies, procedures, documents and/or registers that will be referred to by Supervisors and Site Personnel in the completion of the works.	

4.12.5 Other	
Detail any other information that demonstrates a commitment to work health and safety.	

4.13 Environment

Submissions that do not have the following tables completed in full will be deemed non-conforming. Tables completed with 'refer to attachment X' or similar will be found non-conforming.

1. Has the Company been associated with any notifiable environmental incidents in the past 5 years?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	If Yes, provide details of the incident/s as well as subsequent action taken to improve.
2. Has the Company been issued any warning or breach notices by the Department of Environment and Heritage Protection in the past 5 years?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	If Yes, provide details of the notice as well as subsequent action taken to improve.
3. Detail the practices and processes in place within the company in relation to environmental sustainability (such as recycling and use of recyclable products and materials etc.).			

4.14 Environment: Demonstration of Understanding

The tenderer shall complete the below 'Demonstration of Understanding' in relation to their environmental obligations relating to the Scope of Works.

Submissions that do not have the following tables completed in full will be deemed non-conforming. Tables completed with 'refer to attachment X' or similar will be found non-conforming.

4.14.1 Key Environmental Risks Identified <i>Add rows as required to address the key safety risks identified</i>	
Risk Identified	Proposed Control Measures

4.14.2 Risk Assessments	
Provide a list of the environmental Risk Assessment standards that will be utilised by employees on site in completion of the works	

4.14.3 Environmental Management Systems in the Business	
Provide a list of Environmental Management policies, procedures, documents and/or registers that will be referred to by Supervisors and Site Personnel in the completion of the works.	

4.14.4 Environmental Management Training	
What Environmental management training is provided or has been undertaken by Employees?	

4.14.5 Other	
Detail any other information that demonstrates a commitment to understanding the obligations of the Company in relation to managing environmental impacts.	

4.15 Proposed Departures from ITT Section 2: Scope of Works

- Not Applicable
- Proposed Departures listed: this is a non-conforming offer

A non-conforming offer may be submitted **in addition to** a conforming offer (ie. two separate Section 4 documents must be submitted). A non-conforming submission will not be evaluated unless accompanied by a confirming submission.

Detail all proposed departures below <i>Add rows as required</i>		
Scope of Work Item#	Proposed Departure	Rationale for Departure

4.16 Proposed Departures from ITT Section 3: Conditions of Contract

- Not Applicable
- Proposed Departures listed. Departures may result in the offer being found non-conforming.

Detail all proposed departures below <i>Add rows as required</i>		
Contract Section	Proposed Departure	Rationale for Departure

4.17 Relative Experience and Past Performance

Submissions that do not have the following tables completed in full will be deemed non-conforming. Tables completed with 'refer to attachment X' or similar will be found non-conforming.

Core Business
Provide a description of your Core Business, services provided, as well as information relating to your organisation's experience with similar Contracts/Projects.

Provide **three (3)** previous past performance with similar projects within the last **five (5) years** including the contact details of the company's representative is required to be included in the submission.

Demonstrated Past Performance and Reference #1	
Company	
Project Description	
Project Address	
Dates of Performance	
Cost/Budget	\$
Company Contact Person	
Contact Person Role	
Contact Phone & email	
Provide comprehensive detail of the Works completed for the Project <i>(Include: Skills required, and lessons learned relevant to this Scope of Works)</i>	
Nominated Key Personnel who worked on this project <i>(Where possible list employees who will performing on this project)</i>	

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Demonstrated Past Performance and Reference #2	
Company	
Project Description	
Project Address	
Dates of Performance	
Cost/Budget	\$
Company Contact Person	
Contact Person Role	
Contact Phone & email	
Provide comprehensive detail of the Works completed for the Project <i>(Include: Skills required, and lessons learned relevant to this Scope of Works)</i>	
Nominated Key Personnel who worked on this project <i>(Where possible list employees who will performing on this project)</i>	

Demonstrated Past Performance and Reference #3	
Company	

Project Description	
Project Address	
Dates of Performance	
Cost/Budget	\$
Company Contact Person	
Contact Person Role	
Contact Phone & email	
Provide comprehensive detail of the Works completed for the Project <i>(Include: Skills required, and lessons learned relevant to this Scope of Works)</i>	
Nominated Key Personnel who worked on this project <i>(Where possible list employees who will performing on this project)</i>	

4.18 Tenderer's Key Personnel

The Tenderer must complete one table for each of the Key Personnel who will be allocated to this Project.

The key personnel identified for this Project include:

- Project Manager;
- Work Health & Safety Representative;
- Site Supervisor; and
- Registered Professional Engineer of Queensland (RPEQ).

Failure to complete the below personnel details shall render the Tender Submission non-conforming (i.e. Do not write 'see resume/CV' and attach separate documents).

The Tenderer may add extra tables as required to demonstrate allocation of appropriately qualified resources for other roles considered of importance in execution of the Works.

Submissions that do not have the following tables completed in full will be deemed non-conforming. Tables completed with 'refer to attachment X' or similar will be found non-conforming.

Tenderer's Key Personnel		
Position	Project Manager	
Name		
Allocation to this Project (% or hrs)	% Full time equivalent OR hours per week	
Location during Project	% On Site	% Off Site
Qualifications (specific to this Project) Include as an attachment titled <i>Attachment 13 – Resume – Project Manager</i>)		
Years' experience (specific to this Project)		
Experience (specific to this Project)		

Tenderer's Key Personnel		
Position	Work Health & Safety Representative	
Name		
Allocation to this Project (% or hrs)	% Full time equivalent OR hours per week	
Location during Project	% On Site	% Off Site
(specific to this Project) Include as an attachment titled <i>Attachment 13 – Resume – WHS</i>)		
Years' experience (specific to this Project)		
Experience (specific to this Project)		

Tenderer's Key Personnel		
Position	Site Supervisor	
Name		
Allocation to this Project (% or hrs)	% Full time equivalent OR hours per week	
Location during Project	% On Site	% Off Site
(specific to this Project) Include as an attachment titled <i>Attachment 13 – Resume – Site Supervisor</i>)		
Years' experience (specific to this Project)		
Experience (specific to this Project)		

Tenderer's Key Personnel		
Position	Registered Professional Engineer of Queensland (RPEQ)	
Name		
Allocation to this Project (% or hrs)	% Full time equivalent OR hours per week	
Location during Project	% On Site	% Off Site
(specific to this Project) Include as an attachment titled <i>Attachment 13 – Resume – RPEQ</i>)		
Years' experience (specific to this Project)		
Experience (specific to this Project)		

4.18.1 Environment Personnel	
List Environment related personnel who will be allocated to this project. Include: Name, Position, % allocation to the works and hours to be spent on site.	

4.19 Tenderer's Proposed Subcontractors

The Tenderer must complete one table for each of the major subcontractors who will be engaged (i.e. where a subcontractor is providing specialist services, the below tables should be used to demonstrate their suitability for the work).

The Tenderer may add extra tables as required to demonstrate allocation of appropriately qualified resources for execution of the Works.

Details of intended subcontractors, sub-contracted work and details of proposed subcontract agreements must be included in 'Attachment 4.1 – Procurement Plan.xlsx' as part of the Tenderer's Offer.

Submissions that do not have the following tables completed in full will be deemed non-conforming. Tables completed with 'refer to attachment X' or similar will be found non-conforming.

Subcontractor 1	
Business/Consultant Name	
Works to be subcontracted	
Relevant experience (specific to this Project)	
Subcontractor Key Personnel (if applicable)	

4.20 Fee Proposal

The Tenderer acknowledges and agrees that:

- 1) Price details must not be included anywhere else in the Tender unless stated below; and
- 2) All prices quoted by the Tenderer must exclude GST payable unless otherwise stated.

Submissions that do not have the following tables completed in full will be deemed non-conforming. Tables completed with 'refer to attachment X' or similar will be found non-conforming.

PRICING SCHEDULE

The Tenderer's Offer must include '**Attachment 4.2 – Pricing Schedule.xlsx**' completed in full, returned in native file format.

Fee Proposal – Additional authorised work outside Scope of Work

The Tenderer's Offer must include '**Attachment 4.3 – Additional work outside Scope of Work.xlsx**' completed in full, returned in native file format.

4.21 Procurement Plan

The Tenderer's offer must include the completed '**Attachment 4.1– Procurement Plan.xlsx**'.

The Procurement Plan must be submitted as an attachment in excel file format.