Department of Education, Training and the Arts

School Air Conditioning

GUIDE NOTES FOR SCHOOLS, TENDERERS AND INSTALLERS

Date: 20th October, 2010
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1.0 INTRODUCTION
These guide notes provides:

- Schools with advice on how they should manage air conditioning projects, and
- Contractors with minimum requirements for school air conditioning installations.

1.1 REFERENCED DOCUMENTS
This document is to be read in conjunction with the Schools Standard Air Conditioning Specification.
In this document, the Schools Standard Air Conditioning Specification is referred to as the “Specification”.


2.0 SCHOOLS PROJECT MANAGEMENT GUIDE NOTES

This section provides advice to the Schools for School managed air-conditioning projects. It provides advice on how to manage the project from the briefing stage to the evaluation of tenders and then to the handling of the project during the design and construction stage.

2.1 BRIEFING STAGE

Before calling tenders for any proposed works, the school should develop a detailed Briefing Document. This brief should include the following:

- **Scope** - The scope should provide a general outline of the project, briefly specifying which areas of the school are to be air-conditioned.

- **Project Manager** - To manage the project effectively an individual needs to be assigned to the role of Project Manager (Superintendent). The Project Manager (Superintendent) has the responsibility of planning, reviewing, executing and closing off the project, and also makes the decisions as to reasonable measuring or valuing of work, quantities or time. Before contracts are awarded and construction commences, the Project Manager is to review tenders and construction documentation to ensure the design complies with the brief and specification.

- **Project Timeline** – Provide a project timeline, which includes key dates and school events that may affect the project. It would also be best to plan the project such that the construction stage occurs during the school holidays or outside school hours if the contractor obliges. In general, allow three days per classroom for the installation.

- **Design and Performance Requirements** - The standard design and performance requirements for air conditioning of schools are detailed in the Schools Standard Air Conditioning Specification. This section is where any additional design and performance requirements are to be documented. Any requirements here will take precedence.

- **Building/Room Data Sheets** - The Building/Room Data Sheets will allow the designer to size the air conditioner and supply the most appropriate air conditioning equipment and controls. Floor plans of these rooms should also be provided to assist in the designer. The type of air conditioning is to be specified in the room data sheets. The air conditioning type specified will have an impact on the tender prices. The three types of air conditioning are listed below:

  - **DX Split System**: DX Split Systems are generally used to air condition all classroom areas and office/staff areas. It provides constant indoor conditions all year round and is not affected by the ambient conditions.

  - **Evaporative Cooling System**: Evaporative cooling systems provide efficient air conditioning only when the ambient conditions are dry. It acquires it’s cooling potential from the evaporation of water. During hot and humid days this type of air conditioning becomes inefficient and will not be able to provide sufficient cooling. It is to be used in Manual Arts workshops/ construction areas and Home Economics food preparation areas to provide cooling and replace the polluted air within the space.

  - **Mechanical Ventilation**: Mechanical ventilation replaces the air within the space with air from outside. It is essentially the same as an evaporative cooling system, but does not have the cooling effect resulting from the evaporation of water. It is the cheapest to run and maintain, but will not provide relief during hot and humid days.

After completing the Briefing Document, complete the shaded section of the Minor Works Tender Form, which can be found in the Standard Specification. Send the Briefing Document, Notice to Tenderers, Minor Works Tender Form (with General Conditions of Contract), Returnable Schedules, Schools Standard Air Conditioning Specification and Contractor’s Guide Notes to at least three contractors for tendering.

The Notice to Tenderers, Minor Works Tender form, and Returnable Schedules (Tender Schedule of Prices and Code of Conduct) are located in the **Appendix**.
2.2 FORM OF CONTRACT

The form of contract proposed is the CONDITIONS OF CONTRACT – MINOR WORKS (with design responsibility).

This form of contract has been prepared by Contracts section of Dept of Public Works, and is not to be varied. If any change is proposed, this should be referred to DPW Contracts section, who will carry out any changes (if agreed to).

This document comes with the Conditions of Tender attached, which should be adhered to in the tendering process.

The front sheet of the CONDITIONS OF CONTRACT – MINOR WORKS form is a schedule of contract details for the project. The Project Manager should fill in the top (shaded) portion of the form with the required contractual details. The bottom part of the page (tender details) will be filled in by the tenderer as part of his tender.

Note that any standard conditions of tender offered by a tenderer (usually in fine print on the back of his tender) where they conflict with the CONDITIONS OF CONTRACT – MINOR WORKS must be withdrawn in writing before a tender can be accepted.

Below is a partially completed Minor Works form sample to assist the Principal in filling out the details.

MINOR WORKS (with design responsibility)

<table>
<thead>
<tr>
<th>Date Issued:</th>
<th>DD/ MM/ YYYY</th>
<th>Contact name:</th>
<th>PROJECT MANAGER</th>
<th>Phone:</th>
<th>CONTACT NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project No.</td>
<td>NNNNN</td>
<td>Email:</td>
<td>EMAIL ADDRESS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

INVITATION TO SUBMIT TENDERS
You are invited to submit a tender for the Works described below, in accordance with these Conditions of Tender and Conditions of Contract. Tenders may not be submitted by electronic tender.

TENDERS CLOSE AT: [PLACE] on (date) XX/ XX/ XXXX at (time) 12 noon

(Please ensure that your tender is in a sealed envelope quoting the Project No. and addressed to the correct Tender Box)

DESCRIPTION OF WORKS:

LOCATION: ..................................................

Quality system (clause 8A): NOT APPLICABLE
Building Certifier (clause 4): ENGAGED BY CONTRACTOR
Recycling Policy (clause 12A): Not Applicable
Time for commencement (clause 13): within 3 days of acceptance or
Date for Practical Completion (clause 14): within [SPECIFY] weeks from acceptance or
Liquidated Damages (clause 15): $100 per day (exclusive of GST)
Defects Liability Period (from Practical Completion) (clause 16): [LEAVE BLANK] if none stated, 12 months
Times for making payment claims (clause 20): [LEAVE BLANK] if no time/s stated monthly payment claims will apply
Retention from progress payments (clause 20): 10% of the value of work completed (excl. GST) until 5% of the contract sum, minus GST, is held
Retention after Practical Completion (clause 20): 50% of retention from progress payments

2.3 ROLES IN THE CONTRACT

The contract will be between the Principal under the contract (the person named in the front sheet of the CONDITIONS OF CONTRACT – MINOR WORKS form) and the successful tenderer.

The roles under the contract are:

- Principal the person named in the contract, who is the contractual client (who will own the facility and will pay the bills). For Education projects this will be the Director-General, Dept of Education and Training,

- Superintendent the person defined in the contract, and named in the tender acceptance letter. The superintendent will carry out contractual oversight of the project,

- S.R. the superintendent’s representative, who would be nominated in writing by the superintendent to carry out day-to-day management of the project.

Note that the School Principal is not included automatically in the contractual positions.
It is expected that the following positions would normally be allocated –

- **Principal** The Director-General, Dept of Education and Training.
- **Superintendent** The School Principal. However it is expected that he would delegate the day-to-day activities to the –
- **S.R.** Superintendent’s Representative, who may be one of his staff, a member of the P&C, or even an interested local person.

Note that for simple projects, the School Principal may assume the day-to-day project management.

**Terminology:** In order to clarify the distinction between the Principal under the contract and the School Principal, we have adopted the following terminology in the briefing documents:

- Principal under the contract: Principal,
- Principal of the school: Head of Facility.

**2.4 EVALUATION STAGE**

When evaluating tenders, the following items should be compared.

- Tenderer’s qualifications and licences -
- Contractor’s qualifications to work with asbestos
- The scope of works included in Tender
- The selection and brand of air conditioning equipment to be supplied
- The warranty of the air conditioning equipment (by equipment supplier)
- The inclusion of defects liability period on total installation by installing contractor
- Contractor’s availability for service callouts
- The prices listed in their schedule of prices
- Any exclusions
- Electrical Upgrade Allowances (This may include the power supply to the site and/or, the electrical reticulation within the site)

**Project Costs:**

It should be noted that the contractor’s tender price is not the total cost of the project. There are also associated costs such as:

- **Workplace Health and Safety Levy:** For further information, contact Workplace Health and Safety Queensland on 1300 369 915.
- **Portable Long Services Leave Levy:** For further information, contact QLeave on 1800 803 481
- **Building and Construction Industry Training Fund Levy:** For further information, contact Construction Skills Queensland on 1800 798 488.
- **Electrical supply authority’s supply upgrade:** It is the contractors responsibility to notify the school of any upgrades of power supply to the site that is required during the design stage. This cost is to be borne by the School.
- **Asbestos testing:** Asbestos testing is to be done by QBuild, who are to be paid separately from the contract. If Low Density Asbestos Fibre Board (LDB) is found, the contract is to be stopped and the DET facilities manager for the school will need to be consulted for advice on further action. This cost is to be borne by the School.
- **Asbestos removal:** All asbestos works are to be carried out by certified asbestos contractors.
- **Decanting** of furniture to allow contractors to work in each area.
- **Project contingencies** (for unforeseen items). Contingency amount equal to 10% of the Contract Sum is recommended.
2.5 **TENDER ACCEPTANCE**

Upon reviewing the tenders, a letter of acceptance is to be sent to the successful tenderer. This marks the date at which the contract commences. *(Note that Form 34 must also be sent to the contractor if the construction work is a prescribed activity or has an estimated final price of more than $80,000. Contact Workplace Health and Safety Queensland on 1300 369 915 for assistance in completing this form. The client details are the details of the Principal under the Contract.)*

In the letter of acceptance to the successful tenderer, include nomination of who will be the Superintendent of the works on behalf of the Principal.

Wording can be – “In accordance with conditions of contract, the Superintendent referred to is [name], [address], [contact details(phone/FAX)]”.

Subsequently (or attached to the acceptance letter) the Superintendent may advise the contractor (in writing) the name and details of the appointed Superintendent’s Representative.

Approximately three weeks after the date of the acceptance letter, the start-up meeting will occur on site. The three weeks will allow the contractor to appoint consultants and commence preliminary design activities.

2.6 **START-UP MEETING**

The purpose of the start-up meeting is to introduce the Contractor to all parties involved in the project, allow the contractor to liaise with QBuild for testing of asbestos, allow all parties to develop a common understanding of the contract requirements and how the project will be delivered, and allow the principal to review the contractor’s draft work program and walk through the site to determine the equipment locations.

The Head of Facility (School Principal) or Project Manager is to engage QBuild and ensure that they are present at the Start-up meeting to undertake the Asbestos Sampling.

At the start-up meeting the following items should be included:

- **Project communication** – Determine from the contractor the person that will be the sole point of contact for the project.
- **Design and documentation** – Refer to the flow chart under Clause 2.1 of Section 1 of the Specification.
- **Programming of the works** – Liaise with the contractor to determine the order of works for the project.
- **The Site** – It should be noted that once work commences on a site, the contractor “owns” the site. Apart from the Contractor and his staff, only the Superintendent and Superintendent’s Representative are allowed access to work area. Refer to Clause 5 of Section 1 of the Specification.
- **Salvaged items** – The principal has every right to keep any items that are to be removed during construction. All items to be salvaged are to be specified during the start-up meeting.
- **Final Cleaning** – Refer to Clause 8.1 of Section 1 of the Specification.
- **Asbestos Management** – Refer to Clause 6 of Section 1 of the Specification.
- **Supply Authority Power Supply To The Site** – Discuss with the Contractor the status of any required upgrade to the power supply to the site and the associated costs.
- **Electrical Upgrades** - Discuss with Contractor on the status of the electrical upgrades within the site.
- **Demolitions** – Refer to Clause 2 of Section 2 of the Specification.
- **Site Inspection** – Walk through the site with the contractor and consult with the contractor as to exactly where the A/C equipment shall be located, what existing equipment will be removed and the quality of the making good of the walls/ceilings after the removal of the equipment.
- **Check workplace, health and safety issues and ensure workcover and public liability and
• Professional indemnity insurances are in place
• Discuss progress payment details with the contractor

2.7 DESIGN & CONSTRUCTION STAGE
During the design and construction stage the following checklists should be used to ensure that the contractor complies with the specification.

**DESIGN REVIEW CHECKLIST** - This checklist contains items that should be checked in the design submitted by the contractors.

**PRE-CONSTRUCTION CHECKLIST** - This checklist contains items that should be checked before construction starts on site.

**PRACTICAL COMPLETION CHECKLIST** - This checklist contains items that should be checked before final payment is given at the completion of works.
3.0 CONTRACTOR’S GUIDE NOTES

3.1 General
This section highlights some mandatory requirements and is to be read in conjunction with the School's Briefing Document and Schools Standard Air Conditioning Specification (referred to as Specification).

The Contractor is to design the work based on the minimum requirements set out by the School's Briefing Document and the Specification. This Specification sets the minimum requirements to be satisfied by the Contractor in the execution of the work.

3.2 A/C Installation
Below are guide notes on the mandatory requirements and the contract is not limited to the following items:

• Building Code of Australia Compliance: All installations must conform to the Building Code of Australia specifically in regard to outside air provision and timed control of all air conditioning systems. All designs and installations must be certified by a mechanical engineer registered in Queensland (RPEQ) and have Building Act Compliance Certification.

• Outside Air Supply Rates: Outside air must be supplied to all classrooms at a minimum rate of 4 litres/sec/person via a filtered centrifugal outside air fan as detailed under Clause 2.3.4 of the Mechanical Services Section of the Specification. To allow for degradation of the filter fitted to the outside air supply fan the starting point for all designs must be 5 litres/sec/person. For rooms that do not meet the natural ventilation requirements of the BCA outside air must be mechanically supplied at the rate set down in AS1668.2. For classrooms this equates to 12 l/s/person.

• Outside Air Supply Fans: Outside air must be mechanically supplied to all classrooms by way of a Wall Mounted Centrifugal Fan as specified in Clause 2.3.4 Outside Air Supply of Section 3 Mechanical Services in the Specification. It is important that the fan be fitted with a filter element as specified.

Two Queensland fan manufacturers, Filtertech and Sigrist, are able to meet the specific requirements for required Outside Air Supply fans. These companies offer the fans at two supply rates – 75l/s and 130l/s. This is sufficient to satisfy the majority of class sizes. 130l/s for a full size classroom of 28 students and 75l/s for a half size classroom of 14 students.

• Classroom Occupancy Levels: All designs for General Learning Areas should be based on the maximum allowable BCA occupancy limit of 1 person/2m² of floor area up to a maximum of 28 students per classroom. Classrooms greater than 112 m² shall be treated as multiple classroom spaces and a full class size of 28 students applied to each separable portion of the classroom. The number of air conditioning units and outside air fans selected must be based on the assumption that sometime in the future the classroom will be segregated into completely separate single classrooms.

For main spaces of Resource Blocks occupancy rates shall be based on one person per 3m² of floor area of floor areas less than 200 m² and one person per 4m² of floor area for areas above 200m².

For all other areas, the contractor is to liaise with the Head of Facility to determine the occupancy levels.

Before any design work commences, the occupancy levels are to be confirmed with the Head of Facility.

• Summer/Winter Changeover Control Enclosure: Refer to Clause 2.3.10 of Section 3 in the Specification.

• Air Conditioning System Controls: For student related areas, air conditioning systems must be timer controlled as specified in Clause 2.3.7 of Section 3 in the Specification. The
control of all air conditioning units and outside fans serving double classrooms shall be via one control panel.

- **Asbestos:** All air conditioning contractors must be registered to work with asbestos. Alternatively, if the contractor is not registered they must sub-contract all asbestos cutting and drilling to contractors who are registered. In addition, contractors must comply with all school based procedures for safe working with asbestos.

- **Refrigeration Pipework Insulation:** Pre-insulated refrigeration pipework must not be used. Insulation shall be as specified in the Specification. Installation contractors are to avoid any installation methods that compress the insulation thickness such as the use of cable ties for pipework support or overly tight taping of insulation joints. All insulation joins are to end glued.

- **Condensate Drains:** All condensate lines are to be terminated at ground gullies or tundishes to allow easy and clear inspection of drainage from each fan coil unit. All tundishes are to be extended to the nearest storm water or sewerage connection in accordance with the local council authority requirements. If no such connection points are readily available, the contractor shall provide a tundish at the building alignment and an underground drain line to a suitable rubble pit for the collection of condensate.

- **Twelve Months Defects Liability Warranty Period:** All tenders must include a full warranty period of twelve months on all aspects of the installation. All servicing of air conditioning units must be in strict accordance with the manufacturer’s recommendations to ensure that equipment warranty is maintained.

- **Roof or Ceiling Insulation:** Where no roof or ceiling insulation exists above areas where new air conditioning is to be installed, then new ceiling insulation shall be installed to all such areas. All new insulation shall be Bradford R3.0 Polyester or approved equal. For air conditioned areas where roof or ceiling insulation already exists, the contractor shall determine the thermal properties of that existing insulation and apply this rating in design calculations. Existing roof and ceiling insulation shall only be considered for continued use if the thermal properties are determined to be at least R3.0. For insulation that does not meet this criterion then new or additional insulation shall be installed to meet the rating for new insulation as specified above.

- **Electrical Upgrades:** All contractors tendering on air conditioning works must assess the state of the existing electrical supply to the school site and the electrical reticulation within the site. Tenders are to include an allowance for electrical upgrading as necessary to accommodate the specified new air-conditioning. See further details in the Electrical Upgrades clause.

- **Sub-circuits:** Provide separate sub-circuits to all new air-conditioners. Provide also power circuits to all new fan units being installed.

- **DX Split Systems:** DX Split Systems are to air condition areas specified in the design brief. The internal fan coil cooling units shall be either cassette or under ceiling hung configuration. If asbestos ceilings are present it is recommended that under ceiling units be utilised to avoid excessive asbestos cutting. Wall mounted units should be avoided except where there is a distinct cost advantage and the school is willing to accept the air distribution weaknesses of these units. Tender prices shall be based on under ceiling and cassette units. It shall not be based on wall mounted units.

**Note:** Please refer to the Specification for specific requirements.
3.3 Electrical Upgrades

Electrical Upgrades required may include the power supply to the site, the consumers mains cables that run from the point of supply to the main switchboard, the main switchboard (MSB), the submain cables that run from the main switchboard to distribution switchboards in the various blocks, and the distribution switchboards (DSB's).

Electrical upgrading may be carried out by either increasing the capacity of existing electrical items (size, current rating etc) if those items are in good condition, or by providing new replacement items of the required capacity.

The Contractor must assess at tender time whether the electrical supply to the site or any part of the electrical reticulation within the site, needs upgrading in order to cater for the proposed air-conditioning.

**IMPORTANT - Provide at tender time, details on the extent of electrical upgrading allowed for and also advise the amount allowed for that component of the work.**

Any new or upgraded power supply to the site, consumers mains, main switchboard, or submains must be sized to cater for the existing loads (that will remain) and the new air-conditioning loads, plus any planned and budgeted future load increases, such as future air-conditioning, and have at least an additional 30% spare capacity.

For any building that is to be fitted with new air conditioning that requires it’s submains or distribution switchboard upgraded, allow for the future full air-conditioning of that Block, plus 30% spare capacity.

For preliminary load estimates assume that the air-conditioning will require 175 Watts electrical power per square metre of air-conditioned floor area.

If the Supply Authority electrical supply to the site requires upgrading then:

- At the very start of the Contract, contact the Supply Authority and arrange for the required upgrade to occur. If signatures are required by the School, then forward those completed forms to the Project Manager, to obtain the signatures.
- During the contract arrange for the school to contact their Energy Retailer and request that the electrical upgrade occur. Give all necessary assistance, information and guidance to the school in carrying this out.
- Take all action necessary to ensure that the upgraded power supply is available in a timely fashion and before it is actually needed to supply the proposed new electrical loads.
- Pay all associated Supply Authority charges for the electricity service changes and connections within the school site.
- Any supply authority capital contributions required for electrical upgrading outside the site, or the provision of a padmount transformer, will be paid for by the school. Advise the school of the expected costs (if any) as early as possible, with at least estimates provided at tender time.
- Upon completion of the project, any new main switchboard must have enough spare poles to cater for any planned and budgeted future Blocks or other loads planned to be connected, plus at least 30% spare pole capacity. As a minimum there must be at least 15 spare poles on completion of the project.

The requirement for any new Distribution Switchboard includes the following:

- The Switchboards shall be Project Services Type ‘D’ or ‘B’ distribution switchboards, unless otherwise indicated. Project Services Type ‘A’ and “E’ Load-centre switchboards are normally only to be used in small Blocks such as sheds or Amenities.
- Provide also any necessary additional protection from likely future high fault currents that will be possible when the site is fully developed.
• Upon completion of the project, any new distribution switchboard must have the current rating and spare poles to cater for future full air-conditioning of the respective Block, plus at least 30% spare capacity. As a minimum there must be at least 15 spare poles on completion of the project.

The requirement for any new electrical conduits and pits includes the following:

• All underground electrical conduits shall be heavy duty underground orange PVC type.

• Allow for future work when sizing conduits.

• Allow spare space in new underground conduits such that they can accommodate the expected cables to all planned and budgeted future Blocks (whose cables are expected to run along the same route), the existing (remaining) cabling, the new cabling, and any other known proposed future increases in cabling, plus at least 30% spare capacity.

• Any new underground conduits for consumers mains must have at least 100% spare capacity.

• Electrical conduits run between pits and containing consumer’s mains or submains, shall be at either 150mm or 100mm diameter type.

• Provide pits in conduit runs at least every 50 metres and at changes in directions. Run conduits in straight lines between pits.

• Underground conduits must avoid running through the location of future permanent buildings, unless the finished ground levels and locations of future buildings has already been determined and fixed. Contact the Head of Facility for information on known future building locations. The Head of Facility will then liaise with the school’s Facilities Account Manager to obtain the relevant information.
## APPENDIX

### DESIGN REVIEW CHECKLIST

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Inclusion of tundishes for drainage of condensate from the air conditioners. <em>(Refer to Section 3 – Clause 2.6.13 of Specification)</em></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Secure condensing unit enclosures and concrete plinth for outdoor units as per drawing in specification. <em>(Refer to Section 3 – Clause 2.6.27 of Specification)</em></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Structurally certified proprietary galvanised steel support systems for wall mounted a/c equipment such as fan coils and condensing units. <em>(Refer to Section 3 – Clause 2.6.8 of Specification)</em></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Notification in writing of the resolution of negotiations with the electrical supply authority if supply upgrades to site are required for the air conditioning installation.</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Upgrade of the electrical supply to the site, if necessary.</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Upgrade of the existing electrical reticulation system if necessary to cater for the new air-conditioning loads, and if upgrading is required also allowing for future electrical needs in that upgrade.</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Provision of ceiling fans if not already existing in areas being air-conditioned.</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Removal of all redundant bar heaters in the areas where reverse cycle air conditioning systems provide the heating capacity required.</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Provision of RCD protection to circuits as specified. <em>(Refer to Section 4 – Clause 2.19 of Specification)</em></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>The removal of existing air-conditioning systems including associated electrical services, hydraulic services, accessible ductwork, air relief grilles, and making good where redundant equipment has been removed</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>DX split systems as specified in the design brief</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Mechanical ventilation as specified in the design brief</td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>Evaporative cooling systems as specified in the design brief</td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Summer/Winter Changeover Control Enclosures <em>(Refer to Section 3 – Clause 2.3.10 of Specification)</em></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>Insulation in roof spaces that are currently uninsulated</td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>Building works required to enclose and seal existing evaporative cooled areas that will become air conditioned areas.</td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>Surge Protection for all a/c equipment power circuits.</td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td>A detailed calculation for the sizing of air conditioning equipment <em>(CAMEL heat load program or any other readily available software package)</em></td>
<td></td>
</tr>
</tbody>
</table>
21. Drawings showing all air conditioning units, evaporative cooling units, mechanical ventilation fans, outside air fans, ducting, supports, condensate lines and new mechanical switchboard if required.

22. Drawings showing all building and plumbing works associated with the installation of mechanical services such as, plinths, enclosures, equipment support, maintenance platforms, penetrations and condensate drain termination points.

24. Making good and painting of surfaces left exposed after the removal of redundant equipment.

25. Air conditioned rooms have a compliant mechanical (fan assisted) outside air supply. (Refer to Section 3 – Clause 2.3.4 of Specification)

26. Outside air fans in arts and science blocks have a purge function. (Refer to Section 3 – Clause 2.3.7 of Specification)

27. All air conditioning equipment used are from manufacturers having a well established brand name in Australia. (Refer to Section 3 – Clause 1.10 of Specification)

28. Compliant timer controls for student related areas (Refer to Section 3 – Clause 2.3.7 of Specification)

PRE-CONSTRUCTION CHECKLIST

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Sampling of all suspected asbestos materials that will be disturbed under the contract works.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Access and decanting: the school is to liaise with the contractor in regards to the access and decanting plan required during the construction stage.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Upgrade of the electrical supply to the site  (if necessary).</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Upgrading electrical reticulation within the site (if necessary).</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Contractor provides a time scale bar chart of the construction programme within two weeks of contract acceptance.</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Building Codes Queensland Certification (Form 15)</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Class B Certificates for removal of 10m² or more of bonded asbestos. Class A is required for all works relating to LDB.</td>
<td></td>
</tr>
</tbody>
</table>

PRACTICAL COMPLETION CHECKLIST

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Training on the operation of the A/C equipment should be provided by Contractor</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Handing over of all redundant equipment requested by the School.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Building Codes Queensland Certification (Form 16) completed by contractor</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Operation and Maintenance Manual to be given to school</td>
<td></td>
</tr>
</tbody>
</table>
BUILDING/ROOM DATA SHEET
(This form is to be completed by the Project Manager and included in Tender documents)

Education Queensland Building ID:
...........................................................................................................................................

Building Use:
...........................................................................................................................................

Total number of rooms to be air conditioned:
...........................................................................................................................................
Note: Any space separated by a concertina door is two rooms.

Building Plan Included Yes/No
Note: If no drawings available, a detailed hand sketch of room/building is required.

North Point (Shown on drawing) Yes/No

<table>
<thead>
<tr>
<th>Room 1</th>
<th>Room 2</th>
<th>Room 3</th>
<th>Room 4</th>
<th>Room 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room Number</td>
<td>.........</td>
<td>.........</td>
<td>.........</td>
<td>.........</td>
</tr>
<tr>
<td>Room Name</td>
<td>.........</td>
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</tr>
<tr>
<td>Room Use</td>
<td>.........</td>
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<tr>
<td>Occupancy</td>
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<td>.........</td>
<td>.........</td>
</tr>
<tr>
<td>Type of Air Conditioning</td>
<td>.........</td>
<td>.........</td>
<td>.........</td>
<td>.........</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Room 6</th>
<th>Room 7</th>
<th>Room 8</th>
<th>Room 9</th>
<th>Room 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room Number</td>
<td>.........</td>
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<td>.........</td>
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<tr>
<td>Room Name</td>
<td>.........</td>
<td>.........</td>
<td>.........</td>
<td>.........</td>
</tr>
<tr>
<td>Room Use</td>
<td>.........</td>
<td>.........</td>
<td>.........</td>
<td>.........</td>
</tr>
<tr>
<td>Occupancy</td>
<td>.........</td>
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<td>.........</td>
</tr>
<tr>
<td>Type of Air Conditioning</td>
<td>.........</td>
<td>.........</td>
<td>.........</td>
<td>.........</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Room 11</th>
<th>Room 12</th>
<th>Room 13</th>
<th>Room 14</th>
<th>Room 15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room Number</td>
<td>.........</td>
<td>.........</td>
<td>.........</td>
<td>.........</td>
</tr>
<tr>
<td>Room Name</td>
<td>.........</td>
<td>.........</td>
<td>.........</td>
<td>.........</td>
</tr>
<tr>
<td>Room Use</td>
<td>.........</td>
<td>.........</td>
<td>.........</td>
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</tr>
<tr>
<td>Occupancy</td>
<td>.........</td>
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<td>.........</td>
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</tr>
<tr>
<td>Type of Air Conditioning</td>
<td>.........</td>
<td>.........</td>
<td>.........</td>
<td>.........</td>
</tr>
</tbody>
</table>
## RETURNABLE SCHEDULES – TENDER SCHEDULE OF PRICES
*(This form is to be completed by the Tenderer and returned with Tender Submission)*

<table>
<thead>
<tr>
<th>ITEM</th>
<th>AMOUNT:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Conditioning Equipment</td>
<td>$ ..................................</td>
</tr>
<tr>
<td>Evaporative Cooling Units</td>
<td>$ ..................................</td>
</tr>
<tr>
<td>Air Conditioning and Evaporative Cooling Installation</td>
<td>$ ..................................</td>
</tr>
<tr>
<td>Associated Building Works (Including Insulation)</td>
<td>$ ..................................</td>
</tr>
<tr>
<td>Removal of Redundant Equipment</td>
<td>$ ..................................</td>
</tr>
<tr>
<td>Electrical Upgrade (Including switchboards, power supply to site and electrical reticulation with the site)</td>
<td>$ ..................................</td>
</tr>
<tr>
<td>Design Fees</td>
<td>$ ..................................</td>
</tr>
<tr>
<td>Building Act Approval Fee</td>
<td>$ ..................................</td>
</tr>
<tr>
<td>Commissioning and testing</td>
<td>$ ..................................</td>
</tr>
<tr>
<td>Others:</td>
<td>$ ..................................</td>
</tr>
<tr>
<td></td>
<td>$ ..................................</td>
</tr>
<tr>
<td></td>
<td>$ ..................................</td>
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<td>$ ..................................</td>
</tr>
<tr>
<td></td>
<td>$ ..................................</td>
</tr>
<tr>
<td></td>
<td>$ ..................................</td>
</tr>
</tbody>
</table>

### REGULAR MAINTENANCE COST

| Cost per service | $ .................. |
| No. of Services  | .................... |
| Total Maintenance Cost | $ .................. |

**TENDER PRICE**

| $ .................. |
| plus GST          | $ .................. |
| **TOTAL TENDER PRICE** | $ .................. |

Estimated Electrical Supply Authority’s Costs $ ..................

### EXCLUSIONS

- ...........................................................................................................................................
- ...........................................................................................................................................
- ...........................................................................................................................................
- ...........................................................................................................................................
- ...........................................................................................................................................
- ...........................................................................................................................................
- ...........................................................................................................................................
- ...........................................................................................................................................
- ...........................................................................................................................................
- .............................................................................................................................................
RETURNABLE SCHEDULES – CODE OF CONDUCT FOR CONTRACTORS
(This form is to be completed by the Tenderer and returned with Tender Submission)

AIR CONDITIONING IN SCHOOLS

GENERAL BACKGROUND AND LIMITATIONS
Notwithstanding rules and regulations mentioned under Common Law, Criminal Law, Workplace Health and Safety, Education Queensland regulations and others, these briefing notes are compiled to highlight potential and specific issues related to individuals visiting and working in school premises.

SITE RULES
• Project start-up meeting comprising representatives from each school, DET, Project Manager and Contractor.
• Site induction of all Contractors and sub-contractors’ staff before entering the site.
• Visitors to report each day at school reception desk recording and stating business, hours, locations etc.
• Clear identification of each worker by name badge. The employer shall be identified either by uniform or badge.
• All communications to follow project/contract structure.
• Incident and accident reports are compulsory and must be lodged on the day of the event.
• Do not use offensive language.
• Do not answer provocation by students.
• Do not smoke on site.
• Do not bring prohibited substances on site.
• Clear all rubbish daily.

RECORDS AND DOCUMENTATION
• Visitors logbook signed by visitor and school representative; each day on arrival and departure of site.
• Maintenance book signed by visitor and school representative.
• Site meeting minutes.
• Diary notes.

SAFETY RECORDS AND DOCUMENTATION
• Visitors logbook signed by visitor and school representative; each day on arrival and departure of site.
• Ensure safety of staff, teachers, pupils while working at the end of each working day.
• Ensure protection of Contractors equipment, material and school equipment.
• Ensure protection against dust, debris, fumes and spillage.
• Provide safety data sheet of all hazardous material.
• Ensure the fire alarm system (smoke or thermal detectors) are not accidentally activated.
• Ensure the intruder systems are not accidentally activated.

SECURITY
• Ensure security against theft.
• Ensure security against vermin and rodents.
• Ensure security against rain, water damage, condensate damage, refrigerant leakage.

CO-ORDINATION
Co-ordinate all activities, jobs, start-up, testing, cut in with school representatives and individual occupants of each area.
Co-ordinate all work, equipment layouts and school items to be relocated.

I have read and understood the above details and understand that a non-compliance with the intent herein constitutes a breach in contract.

Acknowledgment: ____________________________ Date: ________________
NOTICE TO TENDERERS

1. TENDER REQUIREMENTS FOR DESIGN AND CONSTRUCTION CONTRACT TENDERS

Tenderers are required to submit as part of the tender the following:

- Tender Form must be fully complete. The net tender sum, GST component and total tender sum must be completed using the corresponding totals from the tender schedule;

- A tender schedule showing a price break up for each building and shall include a completed copy of the Tender Schedule of Prices form;

- A Development Proposal based on the Tender Documents. The Development Proposal is required to contain:
  - a statement of the names of consultants which the Tenderer proposes to engage and the extent of services envisaged;
  - proposed Mechanical & Electrical Subcontractors;
  - proposed selection and brand of air conditioning equipment to be supplied;
  - a time program indicating all activities occurring during the time required for the execution of the work under the Contract, including design development, documentation, construction and commissioning activities; as per Section 1 Preliminaries Clause 7.1.

- Signed copy of the Code of Conduct.

2. SITE CONTACT

Site inspections shall be arranged with the Head of Facility.

3. TENDER LODGEMENT

The tender form has been included in the Tendering Requirements. This form needs to be fully completed, signed and **SUBMITTED IN HARDCOPY format** to the “Address for lodgement of Tenders” as indicated on the tender form by the closing time specified.

**The back of the envelope needs to be endorsed with:**

*your company name and full address*
**MINOR WORKS** (with design responsibility)

<table>
<thead>
<tr>
<th>Date Issued:</th>
<th>Project No.</th>
<th>Contact name:</th>
<th>Phone:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**INVITATION TO SUBMIT TENDERS**

You are invited to tender for the Works described below, in accordance with these Conditions of Tender and Conditions of Contract.

Tenders may be/ may not be submitted by electronic tender.

**TENDERS CLOSE AT:** ................................................................. (for hardcopy tenders) or ................................................................. (for electronic tenders if applicable) on (date) ....... / ....... / ....... at (time) ...........

(please ensure that your tender is in a sealed envelope quoting the Project No. and addressed to the correct Tender Box)

**DESCRIPTION OF WORKS:**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>*Applicable / * Not Applicable (*Delete one)</td>
<td>within .............. days of acceptance or ........ / ........ / ........</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Date for Practical Completion (clause 13):</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>within .............. weeks from acceptance or ........ / ........ / ........</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Liquidated Damages (clause 15):</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$ .............................................. per day (exclusive of GST)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Defects Liability Period (from Practical Completion) (clause 16):</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>................................................................. (if none stated, 12 months)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Times for making payment claims (clause 20):</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>.................................................................</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Retention from progress payments (clause 20):</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10% of the value of work completed (excl GST) until 5% of the contract sum, minus GST, is held</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Retention after Practical Completion (clause 20):</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>50% of retention from progress payments</td>
</tr>
</tbody>
</table>

**LOCATION:** ...............................................................................................................................................................................

**DESCRIPTION OF WORKS:**

(Please ensure that your tender is in a sealed envelope quoting the Project No. and addressed to the correct Tender Box)

**LOCATION :** ...............................................................................................................................................................................

**DESCRIPTION OF WORKS:**

(Please ensure that your tender is in a sealed envelope quoting the Project No. and addressed to the correct Tender Box)

<table>
<thead>
<tr>
<th>TENDER TO:</th>
<th>The State of Queensland through ................................................................. (the Principal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I/We .......</td>
<td>..................................................................................................................</td>
</tr>
<tr>
<td>Location:</td>
<td>..................................................................................................................</td>
</tr>
<tr>
<td>Address:</td>
<td>..................................................................................................................</td>
</tr>
<tr>
<td>Telephone:</td>
<td>..................................................................................................................</td>
</tr>
<tr>
<td>Mobile:</td>
<td>..................................................................................................................</td>
</tr>
<tr>
<td>ACN:</td>
<td>..................................................................................................................</td>
</tr>
<tr>
<td>(if a Company)</td>
<td>..................................................................................................................</td>
</tr>
<tr>
<td>hereby tender to perform the Works described for the amount (inclusive of GST) of</td>
<td></td>
</tr>
<tr>
<td>..................................................................................................................</td>
<td></td>
</tr>
<tr>
<td>Net Tender Sum (exclusive of GST) $ .............................................. of Tender Sum $ ..................................................... Sum $ ..........................................................</td>
<td></td>
</tr>
<tr>
<td>(Please note the amount in words takes precedence)</td>
<td></td>
</tr>
<tr>
<td>I/We elect to provide retention by way of <em>cash / unconditional undertakings</em> (in a form approved by the Principal, available on request) (clause 18). If no deletion is made the Contractor shall be deemed to have elected to provide cash retentions.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>This tender includes for the following addenda</th>
<th>(Please list all addenda e.g. 1, 2, 3 – not three or 3.)</th>
</tr>
</thead>
</table>

**My trading partners are:** (Please complete or update with current information – full names and addresses required)

<table>
<thead>
<tr>
<th>Licensing requirements</th>
<th>(Please complete or update with current information.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QBSA Licence Number</td>
<td>Category</td>
</tr>
<tr>
<td>Other Licence (eg Electrical, Asbestos)</td>
<td>Restrictions / Conditions (if any)</td>
</tr>
</tbody>
</table>

**I/We have the following insurances:** (Please complete or update with current information.)

<table>
<thead>
<tr>
<th>Insurance of Employees (Workcover) Policy Number:</th>
<th>Valid to ....... / ....... / .......</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Liability Policy Number:</td>
<td>Valid to ....... / ....... / .......</td>
</tr>
<tr>
<td>Other Type .................................................</td>
<td>Policy Number</td>
</tr>
</tbody>
</table>

**NAME of Tenderer or Authorised Person(s):** .................................................................

**SIGNATURE(S):** ................................................................. Date ....... / ....... / .......
A1. The tender documents comprise the tender form, letter of invitation to tender (if any), these Conditions of Tender, the Code of Tendering (AS4120 - 1994)\(^1\) as amended by these Conditions of Tender, these Conditions of Contract for Minor Works and such specifications, drawings and any other information issued by the Principal for the purposes of tendering and which may be inspected or obtained at the place of closing of tenders.

A2. For hardcopy tenders:

(i) the tender shall be signed, fully priced where required and accompanied by any other documents required to be submitted;
(ii) the tender must be enclosed in an envelope, sealed and endorsed with the location and description of the work and reference number (if any) and lodged at the place named in the tender form (tender box), by the date and time given; and
(iii) any tender not in the tender box before the specified closing time may be rejected at the discretion of the Principal. In exercising its discretion as to rejection of any tender, the Principal shall, amongst other factors, consider any evidence that the tender was sent by prepaid post or recognised carrier in time to be delivered, within the time stated, in the ordinary course of mail or delivery by the recognised carrier.

A3. For electronic tenders (if applicable):

(i) the tender shall include a completed tender form, be fully priced where required and accompanied by any other documents required to be submitted;
(ii) the tender must be lodged electronically at the place named in the tender form for electronic tenders by the date and time given; and
(iii) an electronic tender shall be deemed to have been delivered at the time the electronic tender enters the Department of Public Works’ information system designated to receive the electronic communication. Any electronic tender that has not entered the designated information system before the specified closing time may be rejected at the discretion of the Principal.

A4. A tender received by a means other than expressly provided for in these Conditions of Tender will not be considered.

A5. The Tenderer is required to satisfy itself as to the correctness and sufficiency of its tender. A tender shall be deemed to be on the basis that the Tenderer has a full knowledge of all matters relating to the Contract and has undertaken an inspection of the site and any existing structures or features thereon.

A6. The Principal shall not be bound by any oral advice or information furnished in respect of the tender but shall be bound only by written advice or information given or furnished by it (which may be given electronically).

A7. The Principal shall not be bound to accept the lowest or any tender. The Principal may accept a tender which on a consideration of all the circumstances appears to be the best “value for money” in accordance with the Queensland Government’s State Procurement Policy. The Principal may consider, accept or decline to accept any tender. A tender shall not be deemed to have been accepted until the date of notification in writing to the Tenderer of such acceptance.

A8. The Tenderer shall have in place the quality system nominated by the Principal (if any).

A9. Notwithstanding that the Principal may have invited tenders from selected organisations or has otherwise procured submission of tenders, the Principal may decline to consider or accept a tender from a Tenderer who, within seven (7) days of being requested to do so, has not been able to satisfy the Principal that it has sufficient financial capacity to satisfactorily perform and complete the Contract in accordance with its terms.

A10. The Right to Information Act 2009 (RTI Act) provides members of the public with a legally enforceable right to access documents held by Queensland Government agencies. The RTI Act requires that documents be disclosed upon request, unless the documents are exempt or on balance, disclosure is contrary to public interest.

A11. Information contained in a tender is potentially subject to disclosure to third parties. In the assessment of any disclosure required by the Principal pursuant to the RTI Act, the Tenderer accepts that any information provided in its tender, including information marked as confidential, will be assessed for disclosure in accordance with the terms of the RTI Act.

A12. Notwithstanding any other provision of the tender documents or a tender, if a tender is accepted, the Principal may publish on the Queensland Government Marketplace website or by any other means, all or any of the following details:

(i) the name and address of the Principal and the successful Tenderer;
(ii) a description of the goods and/or services to be provided pursuant to the Contract;
(iii) the date of award of Contract (including the relevant stages if the Contract involves more than one stage);
(iv) the Contract value (including the value for each stage if the Contract involves more than one stage and advice as to whether any non-price criteria were used in the evaluation of tenders); and
(v) the procurement method used.

A13. For open tenders, the Principal may publish the name of all Tenderers and the lump sum tender prices tendered.

---

\(^1\) A copy of AS4120-1994 is available for perusal at the office of the Principal.
1. DEFINITIONS
   The following definitions apply to this Contract:
   
   “Building Certifier” means the person nominated on the tender form pursuant to clause 4;
   
   “Contract” means the agreement in writing between the Principal and the Contractor for the execution of the work under the
   Contract, including the tender documents;
   
   “Contractor” means the person or company whose tender for the work under the Contract has been accepted and its executors,
   administrators, successors or permitted assigns;
   
   “Date for Practical Completion” means the date, or last day of the period of time, specified on the tender form.
   
   “Practical Completion” means the work under the Contract is complete in accordance with the Contract except for minor
   omissions and defects which will not (and the rectification of which will not) prevent or impair the normal use and occupation of
   the Works;
   
   “Principal” means the person identified as the Principal on the tender form;
   
   “Superintendent” means the person nominated by the Principal to exercise the functions of the Superintendent under the Contract.
   The Superintendent may appoint a Representative to exercise any of its powers, duties, discretions and authorities;
   
   “work under the Contract” means the work which the Contractor is or may be required to execute under the Contract including any
   variations;
   
   “Works” means the whole of the work to be executed and completed in accordance with the Contract, including all variations
   provided for by the Contract, which by the Contract is to be handed over to the Principal.

2. EXECUTION OF WORKS
   The Contractor shall undertake the work under the Contract in accordance with the Contract and any other documents issued by
   the Principal. Unless otherwise provided, the Contractor is responsible for all things, including items not expressly mentioned in
   the Contract, necessary for satisfactory completion of the Works. The documents forming the Contract are mutually explanatory
   and anything contained in one but not in another is equally binding as if contained in all.

   The Contractor shall comply with the requirements of legislation and public or other authorities affecting the Works, and unless
   otherwise specified pay all fees, give all notices and obtain necessary consents.

3. DESIGN RESPONSIBILITY
   (a) The Contractor shall:
       (i) complete the design and documentation of the Works, including drawings and trade specifications, in accordance
           with the Contract and all relevant legislative requirements; and
       (ii) ensure that materials and standards of workmanship prescribed in drawings, trade specifications and other
           documents are fit for the purpose specified in the tender documents, and are consistent with the nature and
           character of the Works and in accordance with the Contract.
   
   (b) The Contractor warrants to the Principal that:
       (i) the Contractor will exercise the degree of skill, care and diligence expected of a competent design professional in
           carrying out the design and documentation of the Works; and
       (ii) the design of the Works will comply with the Contract and will in all respects be fit for the purpose specified in
           the tender documents.
   
   (c) The Contractor shall remain responsible for the design of the Works notwithstanding any approval given under the
       Building Act 1975 or any review or approval of the design undertaken by or on behalf of the Principal.
   
   (d) The Contractor acknowledges that the Principal is relying on the Contractor’s skill and expertise in undertaking the design
       and construction of the Works.

4. BUILDING CERTIFIER
   (a) The Building Certifier is the authority for the purposes of approval under the Building Act 1975. In the performance of its
       duties, the Building Certifier acts as an independent party and not as an agent of the Principal.
   
   (b) The Contractor shall be responsible for obtaining approval under the Building Act 1975 in respect of the design of the
       Works. For this purpose, the Contractor shall pay all fees and submit to the Building Certifier all material necessary for
       obtaining such approval. The Contractor shall allow a minimum of 28 days for approvals under the Building Act 1975.
   
   (c) During construction of the Works, the Contractor shall arrange for the plumbing and drainage installations to be inspected
       by all relevant authorities and all associated fees shall be paid by the Contractor.
   
   (d) Approvals and certificates issued by relevant authorities shall be provided to the Principal as soon as possible following
       Practical Completion.
5. ASSIGNMENT AND SUBCONTRACTING

The Contractor shall not assign the work under the Contract, any part thereof, or any payment without the prior written approval of the Superintendent. If requested, the Contractor shall notify the Superintendent in writing of the name and details of any subcontractor and the value of the subcontract. The Contractor shall not, without the prior written approval of the Superintendent, allow a subcontractor to subcontract work under the Contract. The Superintendent may, in its entire discretion and without giving reasons, reject any such request for approval by the Contractor.

6. WORKPLACE HEALTH AND SAFETY

(a) For the purpose of this clause the words “principal contractor”, “construction work”, “workplace”, “serious bodily injury”, “work caused illness”, “work injury” and “dangerous event” have the meanings assigned to them by the Workplace Health and Safety Act 1995 (“the Act”).

(b) If the work under the Contract is construction work performed at a workplace, upon acceptance by the Principal of the Contractor's tender:-
   (i) the Principal will appoint the Contractor to be the principal contractor pursuant to section 13 of the Act;
   (ii) the Contractor shall accept the appointment and fulfil all requirements to effect that appointment prior to commencing any construction work;
   (iii) the Contractor shall, in respect of the construction work to be executed under the Contract, be responsible for the performance of the functions of the principal contractor within the meaning of the Act and associated Regulation in force under the Act; and
   (iv) the Contractor shall consult with the Principal in relation to how the construction work can be undertaken in a way that prevents or minimises all risks to health and safety.

(c) The Contractor indemnifies the Principal against liabilities arising out of the Contractor’s obligations under the Act or Regulations.

(d) The Contractor shall notify the Superintendent of every work caused illness, work injury, serious bodily injury and dangerous event which occurs on site as soon as possible but not later than twelve (12) hours after such occurrence.

(e) Except as stated in the Contract, if material which may contain asbestos or any other hazardous substance is discovered, the Contractor shall not disturb it and shall inform the Superintendent who shall direct the action to be taken.

7. PROTECTION OF PERSONS AND PROPERTY

The Contractor shall take all measures necessary to protect people and property, including the Works, avoid unnecessary interference with passage of people and vehicles, prevent nuisance, unreasonable noise and disturbance. If the Contractor damages any property, the Contractor shall provide temporary protection for, and repair it at its cost.

8. CARE OF WORK AND REINSTATEMENT OF DAMAGE

The Contractor shall be responsible for the care of the whole of the work under the Contract. If loss or damage occurs to the work under the Contract, the Contractor shall at the Contractor's cost rectify such loss or damage except loss or damage caused by the negligent act or omission of the Principal, or employees or agents of the Principal, or caused by defects in the design of the work under the Contract.

9. INDEMNITY BY THE CONTRACTOR

The Contractor indemnifies the Principal against:-

(a) Loss of or damage to the Principal’s property; and

(b) Claims by any person in respect of injury, death or loss of or damage to any property, resulting from or in any way connected with the Contractor carrying out the work under the Contract, but the Contractor’s liability to indemnify the Principal shall be reduced proportionally to the extent that an act or omission of the Principal, or its employees or agents, contributed to the loss, damage, death or injury.

10. PUBLIC LIABILITY AND PROFESSIONAL INDEMNITY INSURANCE

Before commencing work the Contractor shall have:

(a) public liability insurance for an amount not less than five million dollars ($5,000,000) or such other amount required by the Principal, covering the Contractor’s liability to the Principal for loss of or damage to property and death or injury to any person; and

(b) professional indemnity insurance for not less than one million dollars ($1,000,000) or such other amount required by the Principal.

The Contractor shall maintain the insurance policies required by this clause 10 for the duration of the Contract and produce evidence of insurance if requested.

11. INSURANCE OF EMPLOYEES (WORKCOVER)

Before commencing work the Contractor shall insure against liability for death of or injury to persons employed by the Contractor. Where the Contractor is a self-employed person, the Contractor shall maintain an equivalent insurance policy for itself. The Contractor shall maintain such insurance for the duration of the Contract and produce evidence of insurance if requested. The Contractor shall ensure that every subcontractor is similarly insured.
12. MATERIALS AND WORKMANSHIP

All materials used in any work under the Contract and the standards of workmanship shall be in conformity with the provisions of the Contract. In the absence of such provisions in the Contract the material or standard of workmanship as the case may be shall be of a kind which is suitable for its purpose and is consistent with the nature and character of the Works. Unless otherwise specified, all materials shall be new and workmanship shall be in accordance with the relevant manufacturer's recommendations or, if none, the relevant Australian Standard where applicable. Apart from any tests specified, the Superintendent may at any time direct that any materials or work shall be examined and/or tested.

The Contractor shall comply with any direction by the Superintendent to remedy any work not in accordance with the Contract within the period of time stipulated in writing by the Superintendent. If the Contractor fails to comply with such a direction to carry out rectification work within the time stipulated, the Principal may have the rectification work the subject of the direction carried out by others at the Contractor’s expense or may accept the work at a reduced value. The Principal may deduct the cost of rectification work or reduced value from payments or recover the cost or reduced value as a debt due from the Contractor. The Principal may deduct the estimated cost of rectification work from payments until such time as the Principal has incurred the cost of rectification.

12A RECYCLING POLICY

This clause applies where specified in the Contract.

The Contractor must comply with, and carry out the Works in accordance with, the Recycling Policy for Buildings and Civil Infrastructure2 ('Recycling Policy') including compliance with directions issued by the Superintendent to facilitate compliance with the Recycling Policy.

13. TIME FOR COMMENCEMENT

The Contractor shall commence work under the Contract within the time stated in the tender and shall, unless otherwise permitted, give at least two days notice to the Superintendent prior to the commencement of work.

14. TIME FOR COMPLETION

The Contractor shall execute the Works to Practical Completion by the Date for Practical Completion or within any extended time agreed by the Superintendent. The Contractor is not entitled to an extension of time for delays caused by it whether occurring before or after the Date for Practical Completion, nor for delays due to inclement weather or industrial conditions occurring after the Date for Practical Completion. The Superintendent may extend the Date for Practical Completion for any reason.

15. LIQUIDATED DAMAGES

If the Contractor fails to complete the Works by the Date for Practical Completion together with any extensions of time granted by the Superintendent, the Contractor shall be liable to the Principal for liquidated damages in the amount stated in the tender for every day after that date until Practical Completion has been achieved or the Contract terminated, whichever is sooner.

16. DEFECTS LIABILITY PERIOD

The Contractor shall promptly rectify all defects and omissions notified to the Contractor during the defects liability period stated in the tender. If the Contractor fails to do so, the Principal may have the omission or defect remedied by other persons and the cost so incurred shall be a debt due to the Principal which may be deducted from payments.

17. CLEANING OF SITE

The Contractor shall keep the site and the Works clean and tidy and regularly remove from the site rubbish and surplus material arising from the execution of the Works. On completion of the Works the Contractor shall clear away and remove from the site all constructional plant, surplus materials, rubbish and temporary works of every kind.

18. VARIATIONS

The Superintendent may direct in writing a variation to any work under the Contract and the Contractor shall promptly comply with that direction. The Contractor shall submit to the Superintendent a detailed price for the variation within 14 days of the direction. The variation shall be valued by agreement between the Contractor and the Superintendent or failing agreement, by the Superintendent, and the Contract price adjusted accordingly. The margin for profit and attendance shall be 12.5%. No payment for additional work shall be made unless the additional work is authorised in writing by the Superintendent.

19. LATENT CONDITIONS

If the Contractor discovers physical conditions on the site or its surroundings, excluding weather conditions, which differ materially from those which should reasonably have been anticipated at the time of tender if it had –

(a) examined all information made available in writing by the Principal to the Contractor for the purpose of tendering; and
(b) examined all information relevant to the risks, contingencies and other circumstances having an effect on the tender and obtainable by the making of reasonable enquiries; and
(c) inspected the site and its surroundings,

the Contractor shall immediately notify the Superintendent in writing and may request that a variation be directed pursuant to clause 18.

The Superintendent may issue a direction in respect of the latent condition, and the Contractor shall be entitled to claim an extension of time for delays, and may be entitled to reimbursement of costs incurred as a consequence of the latent condition and directions issued in respect thereof.

20. PAYMENT

At the times stated in the tender, the Contractor shall give the Superintendent a detailed payment claim supported by information the Superintendent may reasonably require. Subject to the provisions of Clause 21, payment will be made within fifteen (15) business days of receipt of a valid claim.

Payment shall take into account the deduction of retention moneys (if any) and any other amount which the Principal may be entitled to deduct or which is due and payable by the Contractor to the Principal whether under the Contract, any other contract or independent of contract. If the moneys to be deducted are insufficient to discharge the liability of the Contractor the Principal may have recourse to retention moneys or unconditional undertakings provided in lieu of retention.

Payment of moneys to the Contractor shall not be evidence of the value of work done or an admission of liability or evidence that the Principal has accepted the work.

(d) Payment shall take into account the deduction of retention moneys (if any) and any other amount which the Principal may be entitled to deduct or which is due and payable by the Contractor to the Principal whether under the Contract, any other contract or independent of contract. If the moneys to be deducted are insufficient to discharge the liability of the Contractor the Principal may have recourse to retention moneys or unconditional undertakings provided in lieu of retention.

21. DEFAULT OF CONTRACTOR

(a) Subject to clause 21(c), if the Contractor fails to commence the work under the Contract within the time stated in the tender, or fails to proceed with the work at a reasonable rate of progress, or commits any substantial breach of the Contract, or indicates that it is unable or unwilling to complete the Works, the Principal may, by written notice, require the Contractor to show cause by the date specified in the notice, which shall be not less than 5 calendar days, why the Principal should not exercise a right under clause 21(b).

(b) If the Contractor fails to show reasonable cause by the date specified by the Principal, then the Principal shall have the power upon notice in writing to the Contractor to terminate the Contract or suspend payment and take the work remaining to be completed wholly or partly out of the hands of the Contractor without prejudice to any rights of the Principal under the Contract or at common law.

(c) If the Contractor:
   (i) fails to hold a current licence required to perform the work under the Contract; or
   (ii) becomes insolvent or bankrupt, or being a company goes into liquidation, or takes or has instituted against it any action or proceedings which has as an object or may result in bankruptcy or liquidation; or
   (iii) enters into a debt agreement, a deed of assignment or a deed of arrangement under the Bankruptcy Act 1966, or, being a company, enters into a deed of company arrangement with its creditors, or an administrator or controller is appointed; or
   (iv) has a receiver or a receiver and manager appointed or a mortgagee goes into possession of any of its assets,

   the Principal may, without giving a notice to show cause, exercise a right under clause 21(b).

(d) In the event that the Principal takes the work out of the hands of the Contractor, the Principal may itself or by means of other persons, complete the whole or any part of that work and may without payment of compensation take possession of the constructional plant and other things on or in the vicinity of the site as are owned by the Contractor. If the cost incurred by the Principal in completing the work is greater than the amount which would have been paid to the Contractor if the Contractor had completed the work, the difference shall be a debt due from the Contractor to the Principal, otherwise any difference shall be a debt due from the Principal to the Contractor.

22. DISPUTES

Within 14 days of a dispute arising either party may refer it to the Superintendent. Within 28 days of receiving notice of dispute the Superintendent shall give its written decision to each party. If the Superintendent fails to give the decision, or if either party is dissatisfied with it, the parties shall within 14 days of receipt of the decision, or the date upon which it should have been given, confer at least once to attempt to resolve the dispute.
23. **GST AND PAYG**

23.1 **GST Included in Price**

Payments for any taxable supplies under the Contract include GST.

23.2 **Tax Invoices**

**Alternative 1**

The Contractor must issue to the Principal a tax invoice or adjustment note (as the case may require) within 5 business days after each of the following occurring in relation to that taxable supply:

(a) the Contractor submitting a claim for payment that is not in the form of a valid tax invoice;
(b) the Superintendent certifying an amount for payment different to the amount claimed;
(c) the amount for payment being otherwise determined to be different to the amount claimed or (if applicable) certified.

**Alternative 2**

(a) Tax invoices and adjustment notes required shall be issued by the Principal (and not the Contractor).
(b) The Contractor must notify the Principal immediately it becomes aware of an adjustment event occurring.
(c) Each party acknowledges it was registered for GST when it entered into the Contract and agrees it will notify the other immediately it becomes aware of it ceasing to be registered for GST.

23.3 **PAYG Withholding**

Whenever the Principal reasonably considers itself bound by law to do so, the Principal shall be entitled to withhold from any payment otherwise due to the Contractor, amounts calculated and to be withheld in accordance with the law.

(*Alternative 1 applies for all contracts with QBuild and Alternative 2 applies for all other contracts unless otherwise advised by the Principal*)

24. **INFORMATION PRIVACY ACT**

If the Contractor collects or has access to Personal Information in order to carry out work under the Contract, the Contractor must:

(a) if the Principal is an “agency” within the meaning of the Information Privacy Act 2009 (IPA), comply with Parts 1 and 3 of Chapter 2 of the IPA in relation to the discharge of its obligations under the Contract as if the Contractor was the Principal;
(b) not use Personal Information other than in connection with carrying out work under the Contract, unless required or authorised by law;
(c) not disclose, or transfer outside of Australia, Personal Information without the prior written consent of the Principal, unless required or authorised by law;
(d) ensure that its officers, employees, agents and subcontractors do not access, use or disclose Personal Information other than in connection with carrying out work under the Contract;
(e) ensure that its sub-contractors who have access to Personal Information comply with obligations the same as those imposed on the Contractor under this clause;
(f) fully co-operate with the Principal to enable the Principal to respond to applications for access to, or amendment of a document containing an individual’s Personal Information and to privacy complaints; and
(g) comply with such other privacy and security measures as the Principal may reasonably require from time to time.

On request by the Principal, the Contractor must obtain from its employees, officers, agents or sub-contractors carrying out work under the Contract, an executed deed of privacy in a form acceptable to the Principal.

The Contractor must immediately notify the Principal on becoming aware of any breach of clause 24.

This clause will survive the termination or expiry of the Contract.

In this clause, “Personal Information” is information or an opinion, including information or an opinion forming part of a database, whether true or not and whether recorded in a material form or not, about an individual whose identity is apparent or can reasonably be ascertained, from the information or opinion.