
29.00 Design Procedures for Consultants & Contractors

29.01 Generally

The following information is provided to assist Consultants and Contractors' Design Managers to carry out their obligations under their respective Agreements with GU.

This Section defines a number of fundamental procedures that are to be strictly observed for all consultancy commissions carried out for GU. They are intended to ensure that the standard of consultancy work for GU achieves a consistently high standard. Consultants should ensure that fees submitted to either GU or a Contractor, including those of other disciplines where applicable, allow for all the requirements of this Section.

The nominated procedures are also intended to improve communication, to ensure the accuracy of the Project Design Brief, and to ensure that the scope of work documented complies with that Brief.

The Associate Director Capital Works (ADCW) CLF is delegated by the Director CLF as having the administrative and technical responsibility for the delivery of Capital Works for GU. All correspondence from Consultants and Contractors shall be addressed to the ADCW.

All instructions to Consultants and Contractors will only be issued by the ADCW, the PD&C Project Manager or any other officer of CLF as nominated in writing by the ADCW. Consultants or Contractors must not under any circumstances accept any instruction whatsoever from any other person or persons, whether involved in the project or not. If a Consultant or Contractor accepts an instruction from anyone other than the ADCW or its nominees, then the Consultant or Contractor shall be responsible for any costs it incurs if that instruction is rescinded by the ADCW.

The ADCW is the Superintendent under the contract for all capital and minor works projects undertaken by GU. The GU Committees that need to be involved in each aspect of a Capital Works project are summarised later in this Section.

It is the longstanding practice of CLF not to appoint a single consultant for the design and documentation of both Electrical and Mechanical Services, but to award separate commissions for each Service to two individual unrelated consultancy firms. Any departure from this practice requires the written approval of the ADCW.

29.02 Consultant

The term Consultant shall mean any Architect, Engineer, Surveyor, Quantity Surveyor and any other individual or firm providing its services either appointed directly under an Agreement with GU, or employed by a Contractor who has been appointed by GU to undertake the design and construction management of a project.

29.03 Contractor

The term Contractor applies only to a building contractor appointed for D&C Contracts, to undertake the management of both the design and construction of a project.

Contractors undertaking D&C Contracts are required to appoint a competent Design Manager to manage and coordinate the activities of all necessary design consultants through both Stages of the D&C project delivery process through to project completion and handover.

29.04 Selection of Consultants for 'Traditional' Contracts

Only consultants who have lodged an Expression of Interest to undertake consultancy services on GU projects, and who have been advised in writing that their EOI has been accepted (with or without qualification) and have been entered on the GU Approved Supplier Register for Consultants & Contractors, will be invited to submit proposals (including fees) to undertake design and documentation services on GU projects to be procured under a fully documented and

tendered Lump Sum Fixed Price contractual arrangement. GU reserves the right to invite a submission from any Consultant not registered on the Data Base if that Consultant possesses particular skills or experience, which GU believes will be beneficial to a particular project.

CLF will prepare a package of documents to be issued to consultants to prepare proposals which will include, but not be limited to, the following;

- Letter of Invitation
- Strategic Objective Brief (if available)
- Technical Brief (if available)
- Space Description Forms (if available)
- GU Standard Conditions of Appointment for Consultants (current Edition) including the following Schedules 1 to 4
- Schedule 1 – Consultancy Services
- Schedule 2 – Supplementary Information and Requirements
- Schedule 3 – Additional information to be Provided with Proposal
- Schedule 4 - Proposal Form
- Site plan showing location of building
- Any sketch plans of the proposed works prepared by PD&C or other consultants
- GU Guidelines for Delivery of Consultant Services

All consultants will be engaged by and contracted to GU, and CLF will manage the design consultancy team throughout the project duration however one consultant, usually the architect, will be appointed as the Coordinating Consultant with responsibility to review and coordinate the work of all the design consultants to ensure that the designs and documentation are comprehensive and fully integrated. CLF will review all documents issued for tender with respect to scope definition and compliance with these Design Guidelines, but will **not** be checking the accuracy and coordination of the documents.

In some instances GU may appoint a 'Head' Consultant to manage and coordinate the design for 'Traditional' contracts. The 'Head' Consultant will be required to engage all secondary consultants to complete the design, and details and fees for those consultants shall be included in the proposal from the 'Head' Consultant (Schedules 3 & 4). GU must be consulted as to the suitability of secondary consultants to be included in any proposal.

Consultants must review the Consultant Brief, and submit any queries regarding the scope of the project or services required in writing to the nominated PD&C Project Manager. A visit to the site is recommended, and should be arranged through the PD&C Project Manager. Claims for additional fees as a result of failing to be fully aware of the site conditions will not be considered.

Consultants submitting proposals may be required to participate in an interview process with the project Users, as part of the evaluation process.

29.05 Selection of Consultants for D&C Contracts

As for 'Traditional' Contracts, Consultants will generally be selected from the GU Approved Supplier Register for Consultants & Contractors.

GU will select an architectural firm through a CLF managed EOI, design concept submission and interview process. The selected firm will have demonstrated to a Selection Panel that it has provided the best response to the EOI criteria and has the necessary design skills to satisfy the Project Brief requirements. The full selection process will be outlined in detail to participating firms when invited to submit an EOI, and may vary slightly from project to project. The selected architect will be nominated to the Contractor for engagement as the project architect.

Following the appointment of a preferred Contractor for Stage 1 Services as defined by the project Conditions of Contract, the Contractor will compile in consultation with CLF, a shortlist of design consultants for all disciplines other than architecture, from which fee proposals will be sought.

The Contractor will prepare the Brief for each consultancy, and following receipt of submissions from all consultants, will evaluate those submissions and submit its recommendation for consultant appointments to GU for its approval.

GU has nominated procedures and criteria for the seeking and evaluation of proposals from Consultants by the Contractor. These criteria are outlined in the 'Conditions of Submission of Proposals' contained in the invitation document issued to Contractors.

29.06 Conditions of Engagement

Consultants engaged to provide services to GU on 'Traditional' Lump Sum contracts will be appointed by the Associate Director Capital Works (ADCW), CLF to perform the required services under the current edition of the 'Griffith University Standard Conditions of Appointment for Consultants', including the Schedules 1 to 4 completed by the consultant and submitted as part its proposal. Consultants will receive a letter of appointment and an Official Order to undertake the commission.

Consultants appointed by a Contractor to undertake services on D&C projects, will be commissioned by the Contractor under terms and conditions mutually agreed to between the Contractor and the Consultant. No agreement will exist between the Consultant and GU in this instance.

The appointment of the GU nominated architectural consultant by the Contractor will be based on a document titled 'Minimum Scope of Architectural Service required for D&C Projects' prepared by GU and provided to the architectural firms participating in the selection process as a basis for providing a fee to undertake those services. The Contractor has the right to increase the scope of services to be provided by the architect, with any corresponding adjustment in the proposed fee, if it considers it necessary for the efficient delivery of the project. Any such change to the scope of service and fee must be submitted to the ADCW for approval. The Conditions of Appointment shall not be less than the GU Standard Conditions used for consultant appointments for 'Traditional' contracts.

In the absence of any instructions to the contrary from the ADCW, the requirements of this Section will apply to any commission undertaken by a Consultant on a GU project, whether appointed by GU or a Contractor.

29.07 GU Organisation

The following GU bodies, committees and boards are responsible for the approval or oversight of all significant construction projects, new buildings or refurbishments, undertaken by GU on or off the University's designated campuses.

University Council	The Council of the University is the governing body ultimately responsible for all construction projects and related policy decisions wherever they occur. The Council is responsible for endorsing the Capital Management Plan (CMP) for the development of the campuses. On all projects, the Principal under the Contract is Griffith University as represented by the Council.
Finance, Resources & Risk Committee	The Finance, Resources & Risk (FR&R) Committee advises the Council on Capital Works matters. The Committee reviews each CMP proposed by the GU Executive and recommends its approval by the Council. Once approved by Council, CMP projects may be implemented by CLF under the oversight of the FR&R Committee subject to adherence to the financial allocation made in the CMP for each project.
Tender Board	The Tender Board must approve the awarding of all Contracts where the contract sum exceeds \$1m. All such approvals will be reported to the FR&R Committee by the Board. The Vice Chancellor & President (VC) has the authority from Council to approve the award of contracts for any project up to \$1m in value without Board approval. For 'Traditional' Lump Sum Contracts, a detailed evaluation of the tenders received is undertaken by CLF and a documented recommendation for award is made to the Tender Board.

	<p>For D&C Contracts, The Tender Board will approve the appointment of the preferred D&C Manager based on an evaluation of the management proposals received from Contractors undertaken by CLF and scored against nominated criteria. The Board does not need to approve the acceptance of the Total Project Sum (TPS) Offer from the D&C Manager, as the TPS Offer must fall within the previously approved CMP financial allocation. All evaluations and recommendations undertaken or made by CLF for presentation to the Board are reviewed by the Office of Financial Services (OFS) who will confirm that the evaluation and recommendation has been carried out in accordance with approved procedure.</p>
<p>Project User Committee</p>	<p>The Project User Committee (PUC) is established by the VC for all major projects. The PUC membership comprises key representatives from the senior University management and the ultimate Users of the proposed project, and may be chaired by the VC.</p> <p>The role of the PUC is to review and approve the following:</p> <ul style="list-style-type: none"> • The project Strategic Objective Brief • The Schematic Design (subject to compliance with budget) • The Developed Design (subject to compliance with budget) • Internal and external colour schemes and materials

29.08 Information to be provided to Consultants & Contractors by CLF

GU will arrange an initial induction and briefing meeting for all Consultants or the Contractor, following their notification of appointment. At this meeting, the PD&C Project Manager will explain and advise on the following;

- Communication protocols required by CLF relevant to the procurement method proposed
- Names and contact details of all members of the Consultant team
- Names of the principal User and the Project User Coordinator or User Representative
- Program details including times and venue for design meetings
- Availability of a detailed site survey
- Availability of relevant existing 'as constructed' drawings and O & M manuals
- Specific project protocols relevant to drawing sheet title blocks, project titles etc.
- GU Design Guidelines & Procedures (Current Edition) plus any Pending Amendments
- The GU Signage Manual (Current Edition) plus any Pending Amendments

The PD&C Project Manager will also arrange for supplementary briefing meetings with relevant personnel from the following list;

- GU Principal Architect
- GU appointed Building Surveyor
- GU Fire Officer
- CLF Mechanical Engineer
- CLF Electrical Engineer
- CLF WH&S Coordinator
- CLF Security & Traffic Manager
- CLF Campus Facilities Manager
- ITI Network Services Project Manager
- ITS Audio Visual Technical Officer
- Project User Coordinator or User Representative

The coordinating Consultant or Contractor shall prepare and issue minutes of all such meetings.

29.09 Project Control Group

Compliance with the reporting criteria of this Clause is Mandatory.

Function & Duties - A Project Control Group (PCG) will be established for most major projects irrespective of the procurement methodology, and will meet monthly for the duration of the Contract. The function, powers and duties of the PCG are to give all approvals, acceptances and directions on behalf of the Principal, which the Principal is required or entitled to give under the Conditions of Contract.

Composition - Membership of the PCG shall be limited to the contracted parties only and shall consist of the Director and Associate Director Capital Works of CLF representing GU, and two representatives of the Contractor, one of who should be the Site Manager. Other persons such as the Coordinating/Principal Consultant ('Traditional' contracts), the User Coordinator/User Representative or design consultants, may be invited to attend and assist at meetings but only with the prior approval of the PCG members. The relevant PD&C Project Manager and the Audit/Project Quantity Surveyor will attend all PCG meetings. Only PCG Members will have voting rights, but all other attendees at PCG meetings will be able to contribute to the discussion but cannot vote on any matters raised for which a determination is required.

Reports - The Contractor shall prepare and present a report to each PCG meeting which shall include, but not be limited to, the following information relating to the project;

- Meeting agenda
- Minutes of previous PCG meeting
- Extension of time claims and approvals
- Current program and site progress including a table of any potential risks which will could affect the date for Practical Completion
- Approvals issued by and required from the Principal
- Design report indicating status of design work for each stage of the works (D&C Projects only)
- Trade package procurement report (D&C Projects only)
- Construction report including performance against program and any issues impacting on progress
- Cost report including updated Cashflow and Variations register
- Quality control reports from consultants (D&C Projects only)
- Rectification status of defective or non-compliant work identified by the Superintendent or consultants
- Safety Audits undertaken and responses to Auditor's report
- Commissioning plans and implementation status
- Current site photos

The Contractors PCG report for D&C projects shall include a report from each design consultant which shall include information with respect to the following;

- Resources currently allocated to the project
- Status of design work
- Status of documentation for trade package tenders and construction
- Authorities approvals applied for or obtained
- Information or approvals required or outstanding from the Principal
- Site inspections undertaken or planned
- Defective or non compliant work identified during site inspections
- Quality of work completed
- Any other issues

29.10 Traditional Contracts, Particular Requirements & Procedures

The following paragraphs define the key documents, procedures and responsibilities which impact on the performance of consultancy commissions undertaken for GU.

Budget – The project Budget for Construction will be nominated in the Letter of Invitation, and shall not be varied unless approved by the Superintendent. The budget is fixed, and is not subject to inflation or industry escalation factors. Consultants are required to prepare a design solution

within the nominated budget amount and shall bear the cost of modifying the preferred design option until this requirement is achieved, unless the consultant can demonstrate at Schematic Design stage that the Client requirements are unachievable within the advised budget.

Conditions of Contract – General Conditions of Contract AS 2124 - 1992 plus the GU Amending Conditions or Minor Works Contract (Refer to **Section 33.00**)

Conditions of Tendering – The GU General Conditions of Tendering for Building Works (current edition) including Appendix A Supplementary Information, Form of Tender and Supplementary Tender Form (if required). Please note that the GU Minor Works Contract is inclusive of Conditions of Tender and Tender Form (Refer to **Section 33.00**)

PC & Provisional Sums – The use of PC and Provisional Sums or Quantities shall be avoided, and shall only be included in Tender Documentation with the written approval of the Associate Director Capital Works CLF.

Cost Estimates – Consultants shall provide cost estimates if required by the Scope of Service in Schedule 1 to the GU Conditions of Appointment for Consultants issued with the Letter of Invitation to submit a proposal. The project Quantity Surveyor/Cost Consultant shall prepare detailed estimates of construction costs only in either elemental or trade format which shall be inclusive of all contractor's overheads and margins, preliminaries and a reasonable contingency allowance. Services consultants shall provide estimates which reflect the likely subcontractor trade costs together with a reasonable contingency allowance but exclude all contractor mark-ups. Cost estimates shall be continuously reviewed and any design changes which have a significant impact on any estimate must be immediately advised to the PD&C Project Manager by the relevant consultant. Clause 3.10 of the GU Conditions of Appointment for Consultants defines the liability of consultants with respect to estimates prepared.

Design Meetings – Design consultants meetings shall be held as frequently as necessary. All design meetings shall be open to attendance by the Superintendent or his nominees.

The Coordinating Consultant will prepare minutes of each meeting and provide a copy to GU. Minutes of Design Meetings shall include comments on the following;

- progress on design
- anticipated tender date
- dates of approvals required from GU
- problems encountered and proposed solutions

Site Meetings – Throughout the construction phase of the project, all consultants shall attend site meetings with the PD&C Project Manager and the Contractor as nominated in Schedule 1. These meetings are intended to review and resolve any issues arising from documentation errors or omissions, unforeseen works and RFI's from the Contractor. These meetings also provide the opportunity for consultants to inspect the works and to bring matters relating to quality and compliance with construction documents to the attention of the Superintendent and the Contractor.

Design Guidelines & Procedures – All Consultants must ensure that they are in possession of the current addition of these Guidelines & Procedures before undertaking any work on the project. These can be accessed at www.griffith.au/campus-development, along with any Pending Amendments to the current edition. Consultants shall note that reproducing or referencing only Sections, Clauses and paragraphs from these Design Guidelines & Procedures (DG&P) in lieu of preparing detailed Specifications of work to be undertaken, is unacceptable to GU.

The clauses of **Section 4.00 Project Preliminaries**, as they apply to a Traditional Contract only, shall be incorporated into the Specification without modification.

Standard Drawings – All Consultants must refer to the GU Standard Drawings, which can be accessed as above.

Variations – Only the Superintendent can issue a Variation to a Contract. Variations to a project must be minimised through the preparation of comprehensive and coordinated tender documents by the consultant team, and Variations should only occur as a result of scope changes by the Principal, latent conditions or unforeseen works, or changes to legislation or Standards which

occur after the works are tendered. If a consultant becomes aware of the need for a Variation to be issued to the Contractor for whatever reason, it shall immediately notify the Superintendent who will determine if a Variation is appropriate.

If the Superintendent is required to issue a Variation to the Contractor for a design error or omission on the part of a consultant, then GU will expect to recover any additional costs it incurs from the relevant consultant in accordance with Clause 3.11 of the Conditions of Appointment for Consultants.

29.11 D&C Contracts, Particular Requirements & Procedures

The following paragraphs define the key documents, procedures and responsibilities which will impact on the performance of the Design Management of GU D&C Contracts by the appointed Design & Construct Manager.

Budget – The Budget for the design and construction of the project (excluding design consultants fees) is nominated in the Technical Brief. The Budget and its component parts will be adjusted for the actual lump sums and percentages offered by the selected D&C Manager' for on-site overheads (Preliminaries), Stage 1 Design Management fee, off-site overheads and management fee (profit), and the lump sum fees for design consultants when appointed. The adjusted Budget is inclusive of, and not adjustable for, inflation or industry cost escalation during the period of the Contract.

Conditions of Contract – The current edition of the GU Standard Conditions of Contract for Design & Construct Projects (Based on AS 4300 – 1995, amended and reproduced under copyright License 1311-c113-3), including the Annexures A to H inclusive.

Conditions of Submission of Proposals – The current edition of the GU Conditions of Submission of Proposals by Contractors for the Management of the Design & Construction of Projects (Based on AS 4300 – 1995). This document outlines the duties and responsibilities of the D&C Manager during Stage 1 of its appointment up to and including the submission of a Total Project Sum Offer to design and construct the project.

Strategic Objective Brief & Technical Brief – The requirements of these Briefs shall not be changed unless advised by CLF.

Cost Plans – The Cost Plan included as part of a Total Project Sum submission from the D&C Manager in accordance with the requirements of the Conditions of Contract, shall be prepared in Elemental format and shall be in sufficient detail to enable the Audit Quantity Surveyor to check the quantum of work included and the basis for the rates applied to each item in the Cost Plan. A generic Cost Plan template is available from PD&C in electronic format which indicates the level of detail GU believes is required to evaluate the price component of the TPS submission.

Following the appointment of consultants for the Stage 1 services, the Contractors' Cost Planner is required to provide an opinion of 'Budget Adequacy', before any design work commences. The object of this exercise is to establish cost benchmarks for each element against which the design can be managed and monitored.

Design Meetings – Design consultants meetings shall be held as frequently as necessary. All design meetings shall be open to attendance by the Superintendent or his nominees.

The Contractor will prepare minutes of each meeting and provide a copy to CLF. The minutes shall include items and actions with respect to the following;

- progress on design
- anticipated TPS submission date
- dates for approvals required from GU
- documentation completion and tender dates for Trade Packages
- problems encountered and proposed solutions

Design Guidelines & Procedures – Design Managers shall ensure that all Consultants are provided with the current edition of these Guidelines & Procedures.

Standard Drawings – Design Managers shall ensure that Consultants have accessed the current Standard Drawings as required.

Variations – Changes to the works as shown on drawings included in the Contract Documents, which arise out of further design development **are not** considered to be changes in scope or quality.

29.12 Documentation Format

The requirements of this Clause are Mandatory.

All drawings shall follow the basic principles of drawing practice set out in AS 1100 and shall be drawn to scale in S.I. units. All drawings issued in hard copy shall be International Series 'A' sizes. Tender drawings shall be A3 size and drawings issued 'For Construction' shall be maximum A1 size (841mm x 594mm), neatly trimmed to the correct size. All drawings issued either in hard copy or electronic format shall be accompanied with a proper drawing schedule detailing the drawing number, revision, drawing title, and the corresponding electronic file name of each drawing issued.

All drawings shall bear the standard Griffith University drawing title block and shall follow the standard project numbering and drawing numbering system as detailed in Griffith University Standard Detail Drawing No. GSD-001A, B and C.

The Consultant or Contractor shall submit to CLF a copy of all tender documents in both electronic format and hard copy, for all disciplines. All drawings shall be saved/exported as .dwg files conforming to the requirements outlined in Clause 29.13 of this Section. The hard copy of the drawings shall be A3 size.

Specifications shall be provided to CLF in MS Word format, and hard copies shall be printed on A4 size paper on both sides.

29.13 Technical requirements for CAD Drawings issued in Electronic Format

The requirements of this Clause are Mandatory.

Electronic files of all drawings shall be submitted in AutoCAD.dwg and PDF formats. If the Consultant or Contractor has utilised BIM capable software (e.g. Autodesk Revit, Graphisoft ArchiCAD, Bentley Microstation) in the documentation process, the model matching with the 'As Constructed' Drawings shall be submitted before the Practical Completion of the project. The model file should be cleaned to remove all extraneous 'scrap' or 'working space' layers, stories, abandoned designs, object creation and testing spaces, empty layers or other content typically produced in BIM production.

The Consultant or Contractor shall confirm the current acceptable AutoCAD version with the Superintendent before submitting drawings to CLF. A test sample shall be submitted to CLF at the commencement of the project documentation for approval. All drawings submitted shall comply with the following requirements;

- Each CAD drawing file shall contain only one drawing with its own title block (layout) and the file name shall be relevant to the drawing number on the title block.
- CAD drawings shall be supplied on CD-Rom. The drawing files shall include all the information necessary to view, plot and edit the drawings.
- Prior approval before submission is required for individual file size exceeding 10MB.
- All fonts and line type styles shall be in accordance with the standards provided by AutoCAD.
- All entity properties (i.e. colours and linetypes) shall be drawn "BYLAYER".
- All blocks attributes and symbols shall be inserted onto the desired layer.
- Follow the Layer naming convention used by the AIA Layering Standard (long format) and consist of: Major Group (1 character) - Minor Group – Modifier (optional) e.g. A-Wall (walls), A-DOOR-IDEN (door numbers), E-POWR-GPO (power outlets), or as agreed with Griffith University.
- Various drawing entities, blocks and annotations shall reside on layers with names relevant to the information they contain. They shall be separately kept on independent layers such that their appearance and visibility are highly controllable.

- All hatching is to be on separate dedicated hatch layers and appropriately named.
- The name length of layers, blocks, Dimstyles, Linetypes, Linestyles, UCS's, views and vports shall not exceed 24 characters.
- Bind all external reference files (XREF).
- All drawings shall be purged of any unused elements such as blocks, fonts, layers, linetypes, and X-References etc. prior to submission.
- Image files used shall be pasted into the drawing without needing to link or refer to any external file.
- Drawing entities shall be drawn in scale 1:1, except for survey drawings which shall be drawn in scale 1:1000.
- Follow the standard colour and pen configurations given below or otherwise submit the plot style table used for each batch of the AutoCAD drawings submitted.

Colour No.	Colour	Line Weight (mm)
1	Red	0.18
2	Yellow	0.25
3	Green	0.7
4	Cyan	0.35
5	Blue	0.25
6	Magenta	0.5
7	Black	0.25
8	Dark Grey	0.1
9	Grey	0.1

29.14 Site Survey & Photographic Record

The requirements of this Clause are Mandatory.

Consultants and Contractors shall arrange a site inspection with the PD&C Project Manager to confirm any existing site services details and to verify the accuracy of any available drawings.

In the case of refurbishment projects, Consultants shall carry out a detailed review of existing building services, and compile a photographic record of the existing installation to help define the scope of demolition, to identify which services and accessories need to be relocated, and to identify any major obstacles relevant to coordination of the new design.

A written record shall also be made of the following;

- location and heights of all existing plant, equipment and services accessories, including notations as to whether or not they are to remain, be demolished or relocated.
- all mechanical, light and power switchboards.
- all infrastructure plant and reticulation which requires assessment as to its suitability to support the proposed new use of the building or designated spaces.

The Consultant or Contractor shall make an assessment of any existing code non-conformances or infrastructure deficiencies and communicate details of same to the PD&C Project Manager.

Copies of all records shall be made available to CLF.

29.15 Communication with GU Project Personnel

It is the responsibility of all Consultants to maintain regular communication with their GU technical service discipline counterpart, to ensure that each is fully briefed on the progress and direction of the design philosophy.

It is in the interests of both the Consultant and GU that the all stakeholders are kept fully informed and involved in the design process, through the PD&C Project Manager.

29.16 Document Review and Compliance with the GU Design Guidelines

The requirements of this Clause are Mandatory.

In addition to the Consultant's or Contractor's normal 'in house' design and quality control reviews carried out prior to documents being issued to CLF for review and comment, a dedicated Design Guidelines audit must be carried out before the documents are formally issued.

No documents are to issued for tender purposes before a Design Guidelines audit has been undertaken.

The Consultant or Contractor must also ensure that interim preliminary issues are made to the PD&C Project Manager for distribution to key Users. The transmittal must clearly identify to whom the documents have been issued and for what purpose.

29.17 Building Services Plans of Altered Existing Buildings

The requirements of this Clause are Mandatory.

Where a Consultant undertakes design services for a major alterations/refurbishment project (over \$250,000 in value), the Consultant will be required to add to his drawings all existing building services of the Building level or levels to be altered/refurbished, in CAD format, where the existing services have not previously been documented in that format.

If the existing building services to the altered/refurbished Building level or levels have been documented in CAD format and are in the possession of CLF, copies of the relevant files will be provided to assist the Consultant.

The building services files are to be:

- Communications, Electrical and Fire
- Hydraulics
- Mechanical

The relevant electronic files of architectural floor plan of the Building level or levels will be supplied in AutoCAD format for reference upon request. The PD&C Project Manager is to be notified of any discrepancies found in the floor plan.

29.18 Practical Completion

Practical Completion will be determined only by the Associate Director Capital Works CLF, on the advice of the PD&C Project Manager and Consultants. The Certificate of Practical Completion will be issued by the Superintendent.

The Certificate will not be issued until such time as all systems have been properly commissioned and are fully operational, inspections have been completed and passed by QFES, and a 'Certificate of Classification Occupancy' has been issued by the University's appointed Building Surveyor. Prior to issue of the Certificate, GU personnel will carry out comprehensive inspections of the works. These inspections will not commence until such time as all Consultants have completed their inspections and necessary rectification has been carried out. Not less than two (2) weeks should be allowed for the GU inspections and tests. The outcome of these inspections will in no way absolve the Consultant or Contractor from any subsequent problems or defects that may become apparent as part of the new works.

29.19 Work Opportunities for GU Students

Contractors undertaking construction works for GU, and Design Consultants awarded commissions to design and document GU projects either by direct appointment by GU or appointed by a Contractor, are encouraged to provide work experience and training opportunities for students enrolled in appropriate courses at GU.

In particular, students enrolled with the Schools of Engineering, Environment (Architecture) and Information & Communications Technology, would benefit from receiving some practical experience and training from Engineering and Architectural Consultants, on the University's own projects, to comply with the Engineers Australia and Australian Institute of Architects requirements and policies for industry experience.

Courses with particular application to GU capital projects are as follows;

- Civil, structural & geotechnical engineering
- Architecture
- Mechanical engineering
- Electrical & electronic engineering
- Mechatronic engineering
- Environmental engineering
- Environmental science
- Information technology & computing
- Urban & environmental planning

Contractors and Consultants can seek further information regarding the relevant School's objectives for industry training including the Industry Affiliates Program on the GU website www.griffith.edu.au.