

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 Director CLF, has administrative and technical responsibility for the delivery of Capital Works for GU. All correspondence from Consultants or Contractors should be addressed to the Director CLF or its nominee.

All instructions on any project will be issued by the Director, or an officer of CLF nominated in writing by the Director CLF. Consultants or Contractors must not under any circumstances take any instruction whatsoever from any other person or persons, whether connected with the project or not.

On all projects, the Deputy Director (PD&C) CLF is the Superintendent. 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 policy of GU that consultancies for Electrical Services and Mechanical Services for a project will not be awarded to the same firm.

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

Generally, only Consultants registered on the GU Data Base of Consultants and Contractors may be invited to submit fee proposals to carry out design work on GU projects. 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.

GU will prepare a Consultant Brief which generally includes the following;

- Letter of Invitation
- Strategic Objective Brief
- Technical Brief
- Space Description Forms
- Site Plan with indicative building location
- Sketch drawings (if available)
- GU Standard Conditions of Appointment for Consultants
- Schedule 1 – Consultancy Services
- Schedule 2 – Supplementary Information and Requirements
- Schedule 3 – Additional Information to be Provided with Proposal
- Schedule 4 – Proposal Form.

GU through PD&C will be responsible for the design management of the project itself, and all Consultants will be appointed by and contracted to GU, however one Consultant, usually the Architect, will be selected and approved to coordinate the work of all the other Consultants.

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 data base of registered Consultants and Contractors.

GU will shortlist a minimum of two Architectural firms for each project, following an EOI submission and interview process.

Following the appointment of the Contractor for Stage 1 services, in consultation with CLF, the Contractor will compile a shortlist of consultants for all disciplines, including architecture, from which it will seek fee proposals.

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

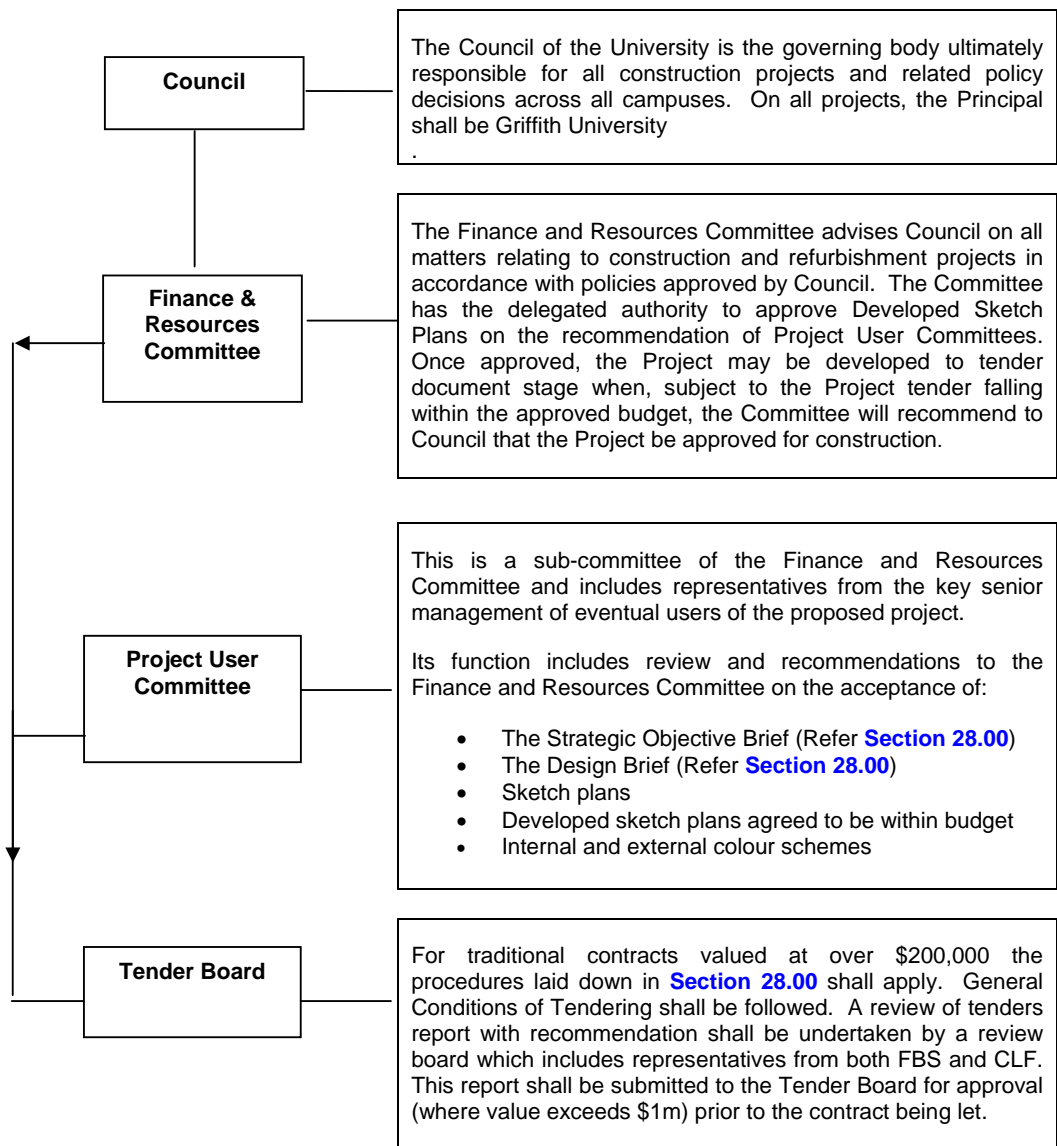
Consultants commissioned to provide services directly to GU for 'Traditional' Lump Sum contracts, shall be appointed by the Director CLF under the 'Griffith University Standard Conditions of Appointment for Consultants' including completed Schedules 1 to 4. The services to be undertaken will be those outlined in Schedule 1. Schedules 3 and 4 shall be completed by the Consultant when submitting a proposal. Consultants will receive a letter of appointment and a GU 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.

In the absence of any instructions to the contrary from the Director CLF, 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 chart gives a brief overview of GU's organisation and committee system that affects capital and major construction or refurbishment projects undertaken by GU.



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
- 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
- Availability of historical load figures
- Specific project protocols relevant to drawing sheet title blocks, project titles etc.

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 Sustainability Coordinator
- CLF Security & Traffic Manager
- CLF Campus Facilities Manager
- INS Voice & Data Network Services
- LES Audio Visual Technical Officer

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 every major capital works project and will normally meet monthly. 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 – The PCG shall consist of the Director and Deputy Director (Planning, Design and Construction) CLF representing GU, the Coordinating Consultant for 'Traditional' Contracts, or two members representing the Contractor for 'D&C' Contracts. Other representatives may be invited to attend the meeting by either party with the prior approval of the members of the PCG. The relevant PD&C Project Manager will attend all PCG meetings.

Reports - The Coordinating Consultant or Contractor shall 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
- Current program and site progress
- Trade Package procurement status (D&C Projects only)
- Cost report
- Updated cashflow
- Variation register
- Consultants reports
- Current site photos

Reports from design consultants included in the monthly PCG Report shall address the following;

Contacts since previous monthly report;

- Client/Users
- Authorities
- Meetings with other Consultants
- External Parties (Environmental, Community, Lobby Groups etc.)
- Audits undertaken

Design Status

- Client/User review/sign off status
- Issues resolved and outcomes achieved since previous report
- Design/documentation work currently being undertaken
- Design/documentation reviews undertaken
- Documentation status
- Issues outstanding and urgent issues to be addressed

Design Compliance

- Off site
- On site

Upcoming Issues to be Considered**Other Issues**

- Consultants Quality Plan status/audits
- Consultants resources
- Other issues

29.10 Traditional Contracts, Particular Requirements & Procedures

The following defines the key documents and procedures, which will impact on the performance of 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.

Conditions of Contract – General Conditions of Contract AS 2124 plus the GU Amending Conditions of Contract Modifying AS 2124 (Refer [Section 33.00](#))

Conditions of Tendering – The GU General Conditions of Tendering (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 Director OFM.

Cost Estimates – Cost estimates shall be provided in accordance with the requirements of Schedule 1 to the Conditions of Appointment. Detailed estimates in either elemental or trade format are to be provided, and shall be inclusive of all contractors overheads and margins, preliminaries, consultants fees and contingency allowances. Estimates of cost require continual review, and any design changes having significant impact on the project budget, must be immediately advised to GU.

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 – Consultants shall be required to attend regular meetings with the OFM Project Manager on site during the construction phase of the project. This meeting is intended to review and resolve any issues arising from documentation errors or omissions, unforeseen works and RFI's from the builder.

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.edu.au/ofm/construction .

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 – Variations to project scope and quality must be kept to an absolute minimum. If, due to some unforeseen or unavoidable circumstance, it is necessary to vary the scope or quality of the work, the Consultant shall within seven days of the need becoming evident, provide to the Superintendent a report detailing:

- reasons for the variation;
- the effect on the budget (value);
- the time effects of the variation based on the current approved Contract Completion Date

Where GU incurs additional costs by way of a variation resulting from design errors or omissions on the part of Consultants, it will expect to recover these costs from the relevant Consultants.

29.11 D&C Contracts, Particular Requirements & Procedures

The following defines the key documents and procedures, which will impact on the Design Management of D&C Contracts for GU.

Budget – The project budget is nominated in the Technical Brief, adjusted for Consultants fees when approved, and shall not be varied unless advised by the Director CLF. The nominated budget is not subject to adjustment for inflation or industry escalation.

Conditions Of Contract – Griffith University Standard Conditions of Contract (Based on AS 4300 - 1995)

Conditions for Submission of Proposals – The GU Conditions for Submission of Proposals for the Management of the Design and Construction of Projects (Based on AS 4300 – 1995). This document outlines the full requirements for all documentation to be submitted at the end of Stage 1.

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

Cost Plans – Cost Plans included as part of the Total Project Sum submission shall be prepared in accordance with the GU generic cost plan format available in electronic format from PD&C.

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 prepared in Microsoft Word, 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 format. If the Architect has used REVIT to produce documentation, then drawing files in .rvt format for the most recent design drawings as at Practical Completion are required to be submitted.

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 Director 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 QFRS, 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 Experience Opportunities for GU Students

Consultants undertaking commissions for GU, either under a direct appointment to GU or appointed by a Contractor, are encouraged to provide work experience and training opportunities to students enrolled in courses at GU.

In particular, students enrolled with the School of Engineering and Information Technology, would benefit from receiving experience and training from Engineering Consultants on the University's own projects, to comply with Engineers Australia's requirements for industrial experience.

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

- Construction engineering
- Mechanical engineering
- Electronic engineering
- Microelectronic engineering
- Engineering technology
- Environmental engineering
- Environmental science
- Information technology

Consultants can seek further information regarding the School's objectives for industry training including the Industrial Affiliates Program (IAP) on the GU website www.griffith.edu.au.