

UNIVERSITY COLLEGE CORK

Establishment of a Multi Supplier
Framework of Construction
Consultancy Services for Small &
Minor Projects for the Buildings &
Estates Office, UCC

Capital Projects Office

Schedule of Stage Services for
Quantity Surveying



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Document Revisions

Issue	Prepared by	Reviewed by	Authorised by	Date Issued	Status
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1.0 INTRODUCTION

This Schedule of Services has been developed to ensure that University College Cork (hereinafter called UCC) service requirements for the completion of the commission are clearly understood by the service provider and is mutually agreed between UCC and the service provider.

The schedule has been developed in a generic format to facilitate its use for all UCC capital developments and while the schedule has been developed to be a comprehensive statement of the service requirements of UCC the service provider must ensure that all necessary actions normally required for the completion of the commission are included for in their proposal.

Any conflicts between this Schedule of Services and the partially complete Schedules A & B or any other information issued by UCC should be immediately brought to the attention of UCC.

The Capital Projects Office Design Team Procedures apply to all to all design team members, regardless of whether they are part of a single point design team, an integrated design team or directly procured by UCC.

Where the commission relates to a single point design team appointment, the term Integrated Design Team Lead (IDTL) shall be replaced with Design Team Lead, and Integrated Design Team (IDT) with Single Point Design Team.

This document is to be read in conjunction with the following documentation:

- UCC's Capital Projects Office Design Team Procedures,

1.1 CLIENT

For this commission the client is "*University College Cork*".

1.2 CONTRACTUAL ARRANGEMENTS

For this commission the client shall appoint single point design team and Section 1.2.2 below applies.

1.2.1 Integrated Design Team (IDT)

The Client shall appoint an integrated design team ("the Design Team") comprising of the following principal service providers (PSP).

- Architect and associated specialist skills providers
- Civil & Structural Engineer and associated specialist skills providers.
- Mechanical and Electrical Engineer and associated specialist skills providers.
- Project Supervisor Design Process.

A principal service providers may be requested to provide a specialist skills provider (SSP), as described in the Suitability Assessment Questionnaire and ITT. A PSP may provide these services as in-house or engage the services of an external consultant. Where an external consultant is used to provide these services, then the PSP shall enter into a sub-consultancy agreement with their respective specialist service. These agreements are to be furnished to UCC prior to completion of Stage 1. A Collateral Warranty will be completed between the Employer and all sub consultants using model form 2.3 latest revision.

UCC reserves the right to withhold payment of services until the executed Collateral Warranty and Sub-consultant agreements have been received by UCC.

In most cases, the Architect will be nominated as the integrated design team lead (IDTL), however for civil engineering projects, the Civil & Structural Engineer may be nominated as the design team lead and will be clearly defined in the Definitive Project Brief.

Each member of the Integrated Design Team shall enter into a direct contract with the Client under their respective Conditions of Engagement, but all parties shall operate as an Integrated Design Team, collaborating and coordinating their services in accordance with these integrated design team procedures, the relevant schedule of services and all other contract documents.

The IDTL shall also be responsible for coordinating and integrating the work of any other consultants appointed directly by the Employer who are not members of the Integrated Design Team, including but not limited to:

- Quantity Surveyor,
- Carbon Co-ordinator,
- Energy Efficient Designer; or
- Any other such consultants engaged by the Client for the Project.

The IDTL's role in managing these additional consultants shall include:

- Programme and Interface Management: Ensuring alignment of deliverables and design information with the Integrated Design Team,
- Information Coordination: Incorporating their outputs into the overall design and documentation; and
- Communication Management: Acting as the primary point of coordination between such consultants and the Integrated Design Team.

The Integrated Design Team shall collectively adopt and implement an Integrated Working Protocol, covering:

- Agreed procedures for design coordination,
- Common Data Environment (BIM),

- Risk management processes,
- Collaborative decision-making and reporting structures; and
- Regular coordination meetings.

Each integrated design team member remains responsible for the performance of their own services under their Conditions of Engagement, including compliance with Building Control (Amendment) Regulations 2014 and all statutory obligations.

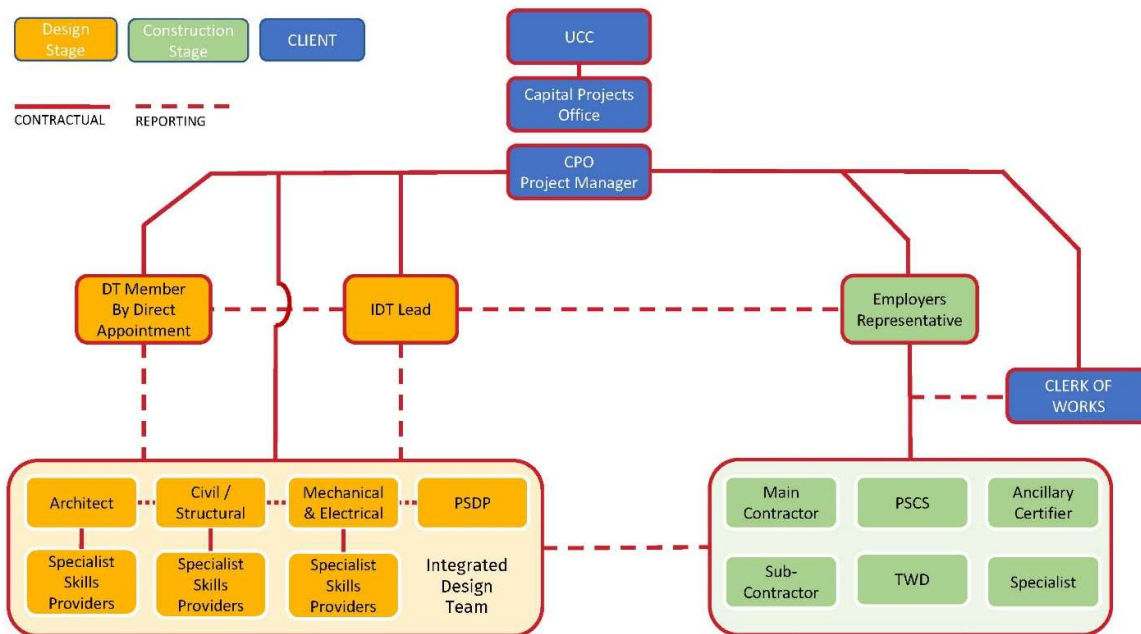


Figure 1.2.1 Integrated Design Team Reporting Structure

1.2.2 Single Point Design (SPDT)

The employer will enter into a contract with the Design Team Leader who is identified as the Architect for this project. The Architect will enter into a sub consultancy agreement with the other consultants i.e. Civil & Structural Engineer, Mechanical & Electrical Engineer, Quantity Surveyor, PSDP, ER, Design Certifier, Assigned Certifier etc.

These agreements are to be furnished to UCC prior to completion of Stage 1. A Collateral Warranty will be completed between the Employer and all sub consultants using model form 2.3 latest revision.

UCC reserves the right to withhold payment of services until the executed Collateral Warranty and Sub-consultant agreements have been received by UCC.

Where identified in the Definitive Project Brief, some disciplines may not form part of the single source provider and shall be procured by direct appointment by UCC. In this instance the Design Team Lead and all other design team members shall accept this discipline as an active member of the overall Design Team.

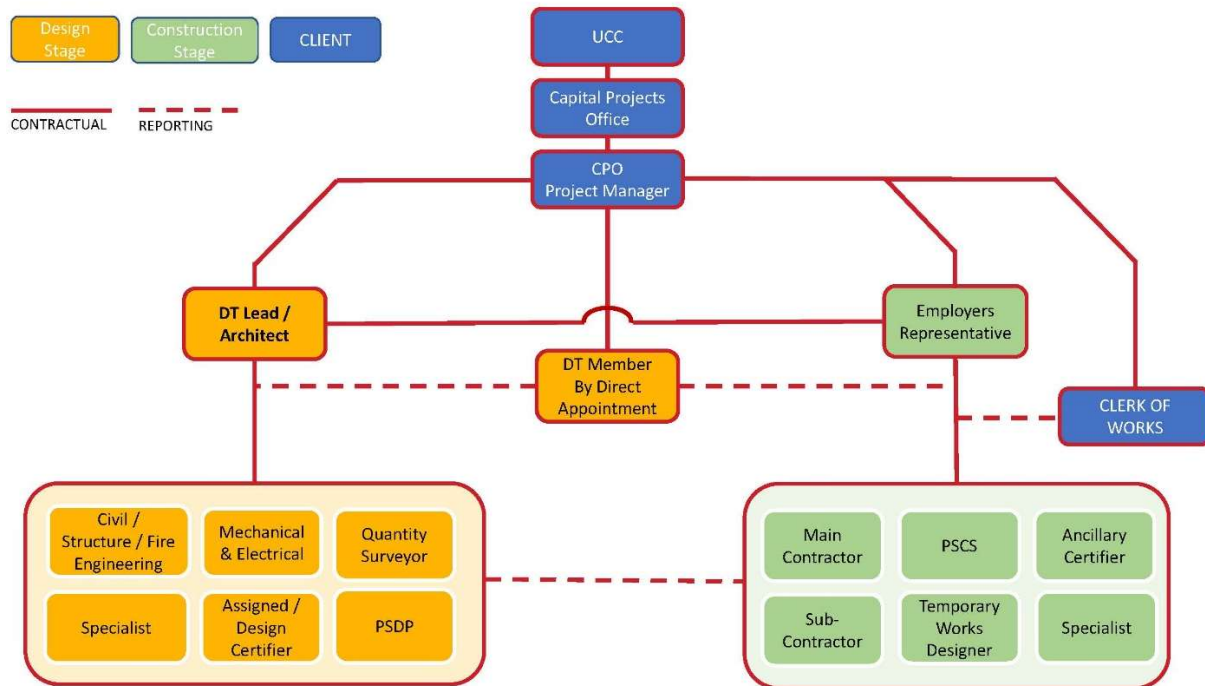


Figure 1.2.2 Single Point Design Team Reporting Structure

1.3 THE SCOPE OF SERVICES

The terms of engagement for design team members are the Office of Government Procurement Standard Conditions of Engagement current at the time of the appointment. (available at <https://constructionprocurement.gov.ie/standard-conditions-of-engagement/>).

The scope of services is as set out in this document and is to be read in conjunction with all other schedule of services for each discipline. The Quantity Surveyor shall report directly to the UCC Project Manager.

The scope of service includes all work required to design and construct the project in a competent and professional manner (whether expressly stated or not); prepare all documentation and reports required by these procedures; obtain all necessary approvals whether UCC or statutory approvals, all in accordance with the above documents or as otherwise modified by the briefing information. All work required to comply with the Building Control (Amendment) Regulations 2014 is included in the scope of service, including the roles of Design Certifier and Assigned Certifier to be carried out by the Design Team Leader.

Consultation with UCC and UCC's end users is an on-going process during the stages and is included as part of the Service. In particular, the service includes for repeat submissions (where required), meetings and such other communications as may be needed to complete the Project or Stage.

The design team is responsible for the printing, reproducing or purchasing of all documents, drawings, maps, photographs and other records for the proper performance of the service.

Delays caused by the main contractor resulting in prolongation of the contract are not a cause for additional fees in accordance with the Conditions of Engagement.

1.4 SUSTAINABILITY / ICMS

Measuring the carbon generated in the operation of built assets has been a focus of building designers, legislators, and policy makers for several decades with the result that our new buildings are constructed to near zero carbon levels for their heating, cooling and lighting needs.

The carbon produced in the construction stage is the next area that must be tackled.

Measuring and reporting on embodied carbon is vital if we are to understand what steps can be taken in the design and specification of buildings to reduce our carbon footprint. Whether that is in specifying materials with a lower carbon footprint or incorporating greater amounts of recycled materials or reusing resources that are currently sent to landfill.

The OGP are adopting the International Cost Management Standard (ICMS) to enable consistent reporting of costs, life cycle costs and life cycle analysis including embodied carbon across the National Development Plan. The first updated cost reporting templates incorporating ICMS have been published in August 2023 and are included in Pillar 3 of CWMF documents, Under Cost and Carbon documents, file CC1 – Buildings – Cost and Carbon Template. This new template changes the cost reporting from NSBE to ICMS reporting. This will align with BIM processes and also facilitate Carbon reporting across the life cycle of projects. The first iteration deals with acquisition and construction costs/carbon only. They will be updated early in 2024 to incorporate reporting of life cycle costing and further again in 2025 to enable reporting on life cycle analysis including embodied carbon.

The SCSi has also issued a Guidance note “ICMS Explained A User Guide for the International Cost Management Standard 3 (ICMS 3)”

The Quantity Surveyor shall incorporate the Carbon Co-Ordinator throughout the project with reporting requirements associated with Whole Life Carbon and Life Cycle Costing in line with the Requirements of ICMS.

2.0 PROJECT MANAGEMENT AND CO-ORDINATION

2.1 DESIGN TEAM LEADER

The design team leader is the Architect, unless otherwise noted in the Definitive Project Brief.

The following duties apply to the Design Team Leader (for all Stages) in addition to the duties relevant to his/her professional discipline:

- Overall Management / Co-ordination of Project Stages and Programme including ensuring that any information, communications and/or Stage Submissions are channelled through the Design Team Leader.
- Chair and record Design Team Meetings, Site Meetings, third party and stakeholder meetings as necessary.
- Prepare and submit monthly reports on progress, quality, cost and Health & Safety in relation to the development with the assistance of the other Design Team members in such form as UCC may reasonably require.
- Ensure that the Design Team comply with UCC procedures and SOP's as they may apply to building design and construction to include fully co-ordinated plans, room data sheets and elevations of all rooms.
- Develop and provided fully co-ordinated room data sheets for each room to the level of detail as outlined in examples provided in Appendix A, Room data sheets are to identify and locate all fixture and fittings placed on the walls, floors, ceilings and reflected ceiling plans, but also all fixed and loose furniture. In addition, all M&E equipment within ceiling and wall voids are to be indicated ensuring that access hatches are located such that all necessary plant that needs to be maintained can be easily accessed. The room data sheets are to be extracted from the fully co-ordinated federated BIM model, where BIM is a requirement of the project.
- The Design Team Leader is responsible for reviewing all documentation (from whatever source or discipline), carrying out a quality check on that information and ensuring that all drawings and documents are co-ordinated between the disciplines.
- The Design Team Leader must also ensure effective communications between the relevant DT disciplines, and, where such communications or responses are not effective, implement corrective action including (if required) UCC notification.
- In addition, the Design Team Leader is required to act as Design Certifier and Assigned Certifier in accordance with the requirements of the Building Control (Amendment) Regulations 2014 and the associated Code of Practice for Inspecting and Certifying Buildings and Works.
- The Design Team Leader shall monitor and review the progress of the project in line with the approved project program and budget and shall report any divergences, with recommendations to mitigate any further deviations to the employer. The design team leader in conjunction with design team members shall ensure that inflation is accounted for in their design and budget management.

- The Design Team Leader shall monitor and review the progress and performance of its design team and report any divergences, with recommendations to mitigate any further deviations to the employer.
- The Design Team Leader is also responsible for ensuring compliance with UCC's Schedule of Services, for all disciplines. Refer to the following Schedule of Services for the following roles;
 - Civil/Structural & Fire Engineering Services.
 - Mechanical & Electrical Engineering Services.
 - Quantity Surveying Services.
 - Project Supervisor Design Process (PSDP).
 - Employers Representative.
 - Information Manager (BIM Projects Only).
 - Planning Consultant (Project Specific).
- For the construction period the Design Team Leader will act as UCC's representative in line with schedules A & B of the Standard Conditions of Engagement. The Design Team Lead must ensure that the completed design meets the budgetary requirements. The Design Team Lead must ensure that the completed design of the project fulfils the programme requirements.

2.2 OTHER DESIGN TEAM MEMBERS

The other Design Team members are responsible for all work (relevant to their discipline) required to design and construct the project in a competent and professional manner (whether expressly stated or not).

The other disciplines are required to co-operate with each other and the Design Team Leader and provide (in a timely manner) all information and documentation needed to permit the other disciplines to complete their work.

All Design Team members are also required to review, quality control and co-ordinate all information and Stage documentation with other DT members and ensure compliance with each disciplines UCC's Schedule of Services.

In addition, all Design Team members (with the exception of the Quantity Surveyor), including any sub-consultants that may be employed and relied upon for elements of the design, will be required to provide ancillary certificates for the elements of work for which they are responsible in accordance with the requirements of the Building Control (Amendment) Regulations 2014.

A member of the team will be required to fulfil the role of Employers Representative (ER) for the project in accordance with the requirements of the CWMF. The role of the ER is a dedicated role and the individual must not have any other function (design or otherwise) for the project. The ER can be independent of the other members of the design team i.e. a separate individual or company or can be chosen from within one of the participating team members. The role of ER should be fulfilled by the same candidate for stages i to v.

2.3 BUDGETARY COMPLIANCE AND COST CONTROL

The Infrastructure Guidelines and the Capital Works Management Framework place a clear obligation on all contracting authorities to ensure value for money in the delivery of publicly funded projects.

In support of this obligation, the Quantity Surveyor shall ensure that all design team members both collectively and individually are responsible for ensuring that all design and consultancy services are delivered within the approved project budget. This responsibility applies across all project stages and must be demonstrably upheld through proactive cost planning, rigorous cost control, and continuous budget monitoring. Key responsibilities include:

2.3.1 Budget Alignment

All design proposals must be developed in strict alignment with the Definitive Project Brief and the approved budget. The Quantity Surveyor shall work closely with the Design Team Leader and ensure that the design solution is viable, cost-effective, and capable of delivery within the financial parameters set by UCC. For budget development throughout the project, please refer to Guidance Note 1.3 Budget Development.

2.3.2 Cost Planning and Control

The Quantity Surveyor in conjunction with the design team shall implement the cost planning and control procedures outlined in GN 2.2 Planning & Control of Capital Costs, including the preparation of Outline Cost Plans, Developed Cost Plans, and Pre-Tender Cost Checks. Costs plans shall be presented utilising the prescribed templates provided on Office of Government Procurements Capital Works Management Framework website. These documents must be submitted at each relevant stage and reviewed in conjunction with UCC's Capital Projects Office.

Additionally, the Quantity Surveyor shall support the carbon co-ordinator throughout the lifespan of the project, to ensure the reporting requirements associated with whole life carbon and life cycle costing is adhered to in line with the requirements of ICMS.

2.3.3 Risk and Contingency Management

The Quantity Surveyor supported by the Design Team shall identify and manage cost-related risks throughout the design process. Where risks materialise, mitigation strategies must be proposed and documented. Any drawdown from client contingency funds must be justified and approved in writing by UCC and appropriately recorded.

2.3.4 Change Management

No changes to the scope or design that impact the budget shall be made without prior written approval from UCC. All proposed changes must be accompanied by a detailed cost impact analysis and a recommendation for corrective action or budget transfer, as appropriate.

2.3.5 Value Engineering

The Quantity Surveyor shall actively assist the Design Team to undertake value engineering exercises at each stage to optimise cost efficiency without compromising quality, performance, or compliance. Where the Pre-Tender Estimate exceeds the approved budget, the Design Team shall be responsible for identifying and implementing cost-saving measures to bring the project back within budget.

2.3.6 Accountability:

Any cost overruns arising from incomplete design, inadequate detailing, or failure to apply reasonable skill and care shall be the responsibility of the Design Team. UCC reserves the right to seek recompense through the Design Team's Professional Indemnity Insurance for substantive costs or delays incurred.

2.4 WHOLE LIFE CYCLING COSTING METHODOLOGY FOR CAPITAL PROJECTS.

2.4.1 Definition and Scope

Whole Life Cycle Cost (WLCC) encompasses all costs associated with a capital asset over its functional life, expressed as Net Present Value (NPV). For public sector projects, this includes:

- **Capital Costs:** Initial construction/procurement costs
- **Operating Costs:** Energy, utilities, staffing, consumables
- **Maintenance Costs:** Planned preventative and reactive maintenance
- **Replacement Costs:** Major component renewals during life cycle
- **Disposal Costs:** Decommissioning, demolition, site remediation
- **Residual Value:** Any salvage or disposal value (negative cost)

2.4.2 Analysis Period

Project Type	Typical Analysis Period	Rationale
Educational Buildings	50 years	Long-term institutional use
Mechanical/Electrical Systems	15-25 years	Component replacement within building life
Healthcare Facilities	40-50 years	Critical infrastructure
Roads	40-60 years	Pavement design life + maintenance cycles.
Utility Infrastructure	50-100 years	Asset longevity, replacement costs.
Bridges	100-120 years	Structural design life

2.4.3 Discount Rate

Apply Public Spending Code discount rates:

- **Standard Rate:** 4% real discount rate (current PSC guidance)
- **Sensitivity Analysis:** Test at 3% and 5% to assess robustness
- **Inflation:** Use real costs (inflation-adjusted) with real discount rate.

3.0 STAGE SERVICES

3.1 STAGE 1 – PRELIMINARY DESIGN

3.1.1 Co-ordination of the Project Stage.

- Obtain written approval from UCC to commence stage.
- Assist in co-ordinating design team members and provide all information as necessary for Stage completion.
- Assist in reviewing, quality control and co-ordinating all information and stage documentation with other Design Team [DT] members and ensure compliance with UCC's Design Team Procedures.
- Provide the UCC appointed Project Manager with sufficient notice for all UCC required approvals, decisions on matters that require any action by UCC, and where appropriate, assist UCC by providing recommendations and options.
- Within one month of appointment, the design team lead shall prepare and submit to UCC a detailed and comprehensive **Responsibility Matrix**, (with contributions from all design team members) which will identify all significant individual and collective responsibilities for the safe and efficient delivery of the project.
- Prepare and co-ordinate all drawings in a software format this is compatible and allows the Design Team or UCC to provide clean drawings without additional cost.
- Allow for responding to all UCC queries within 2 days of being requested or sooner if required to maintain contract programme or for urgent matters.

3.1.2 Design Team Meetings and UCC Consultation

- Allow for fortnightly (more if required) for UCC consultations meetings (by Senior or Director) on site including travel time & expenses:
 - initial consultation to review brief and programme or work,
 - prior to developing sketch designs and
 - to discuss and agree draft report.
- Allow for fortnightly Design Team Meetings on site to coincide with UCC meetings.
- Allow for at least 3+ brainstorming sessions with the Design Team and UCC.
- Allow for all other meeting as required in the UCC Meeting Matrix.
- Include for repeat consultation as above for all material changes to the design or Stage 1 report (other than substantive UCC changes to brief).
- Allow for 10No. design consultation meetings with the UCC and the End-User groups. A summary Charette exercise will be required. UCC and the End-Users will need a reasonably extensive initial design critique approach in this consultation.

3.1.3 Review Brief

- Validate all briefing and supplementary information (from whatever source) including Health and Safety Risk Assessment and Project Viability Assessment.
- Where the project involves expansion or refurbishment of an existing building(s), carry out a full and detailed review of all relevant existing information that UCC makes available to the design team. All information in relation to the existing building is to be verified by visual inspection for accuracy.
- Advise UCC on the cost viability of the project for the available budget.
- Carry out such commercial assessments as may be necessary to determine the feasibility of UCC's requirements.
- Discuss with and recommend to UCC economies in terms of cost / programme, which are consistent with the UCC's project goals and requirements by reference to the project brief and sound design and construction practices.
- Raise with UCC at the earliest opportunity any concerns as to the cost of accommodating the project brief.

3.1.4 Site Investigation

- Assist the Civil / Structural Engineer in preparing a Bill of Quantities Pricing Document for inclusion in the Site Investigation tender documents (using the Public Works Short Investigation Contract).

3.1.5 Surveys

- Assist Design Team members in the preparation of a Bill of Quantities Pricing Document for any surveys required.

3.1.6 Undertake a Suitability Assessment of Site & Location(s)

- Prepare and provide written evaluation of all possible locations on site (with evaluation criteria clearly indicated and applied to all the options).

3.1.7 Evaluation of Existing Building(s)

- Where the project includes the evaluation / assessment of one or more existing building(s), or where a Schedule of Alterations to existing Accommodation and/or a provisional Schedule of essential Remedial Works is provided with the brief, the Design Team must make a careful evaluation/detailed inspection and viability assessment of those existing building(s) identified in the Brief and in particular the elements requiring remedial works.
- The scope of works to the existing building should be the minimum required to comply with current regulations and to provide a safe, durable educational facility.
- Where project involves expansion or refurbishment of existing buildings, carry out a full and detailed review of all relevant existing documentation that UCC makes available to the design

team. Undertake as necessary any opening up works to verify the content of this information and to ensure the design is a true reflection of the existing building. UCC reserves the right to recoup additional costs (including consequential costs) arising during the construction stage from the Designs Team failure to verify existing information from the Design Team and/or their Professional Indemnity insurance.

3.1.8 Local Authority & Third-Party Consultation

- Consult with statutory undertakers in relation to costs as necessary.
- Advise UCC on any agreements, leases and consents necessary for the installation, removal and / or relocation of their services and for the provision of supplies.
- Assist in negotiating all approvals, agreements, leases and necessary consents with the statutory undertakers.
- Prepare any special drawings, or technical information for use of UCC or as required in connection with the approvals and consents or for negotiations with adjoining owners, public authorities, licensing authorities, financing bodies and others and in relation to land dedications and road widening schemes.
- Assist UCC to ensure that advance orders are placed with local and statutory authorities and utility service providers as necessary so that completion of the design is not reasonably delayed.

3.1.9 Benchmarking Visits

- Identify relevant similar projects in conjunction with the UCC's appointed Project Manager and visit with UCC as required to develop a fuller understanding of the UCC's and the End-Users requirements.
- Allow for a 2-3 day visit to mainland Europe for a design benchmarking trip to view similar buildings / facilities. Please note that the Design Team lead will determine which disciplines will attend the benchmarking trip with all costs incurred to be included with the Form of Tender & Schedule Price. The Design Team led is to also include all associate travel and accommodation costs for three UCC personnel.

3.1.10 Preliminary Sketch Designs

- Develop the brief through full engagement with UCC's project manager, all identified end-user, relevant stakeholders and other DT members.
- Assist with the preparation of feasibility reports and all other necessary works.
- Visit the site, examine reports and identify all abnormal costs associated with the project.
- Analyse and develop UCC's & End-Users requirements. Carry out studies as may be necessary to determine the feasibility of the UCC and End Users Requirements. Advise space planning and vertical and horizontal circulation. Advise on and analyse UCC's & End-Users internal requirements to ensure a properly functioning building for UCC & End-Users current business operations and intended / potential future use.

- Review and analyse the outline proposals of the Project prepared by the Design Team and prepare an approximation of the cost of achieving such proposals, broken down into such detail as UCC may require.
- Prepare a detailed written cost report containing an assessment of the likely cost of the project, in a format agreed with UCC. Report to UCC concerning the cost of achieving the brief including initial evaluations of all amendments, variations and / or alternative design solutions put forward on behalf of UCC.
- Provide information to assist the Design Team (DT) lead & UCC by the provision of cost advice as requested by DT lead & UCC.
- Review with the Design Team alternative design options and construction approaches appropriate to the work stage and advise cost implications.
- Prepare preliminary sketch design (in consultation with other D.T. members). QS to assess and record cost implications.
- Identify specialist's sub-consultancy packages.
- Advise on the need for specialist contractors and suppliers to design and execute the parts of the works.
- Develop a flexible phasing strategy for the implementation of the development.
- Phasing
 - Where phasing is a requirement of the project, develop a feasibility study for all phases of the development, including a priority list of works for all phases.
 - Allow for all enabling works packages.
- Assist in recommending project execution strategy, involving phasing, programme, form of contract and method of contract procurement to provide satisfactory completion of the development at or below the approved cost limit and within the approved time periods identified.
- Advise on all contractual matters that arise during this stage.
- Develop a feasibility study as noted in the Definitive Project Brief including a priority list of works for all phases.
- Assist the Architect in developing a constructability report with the assistance of the other Design Team members and present to the UCC.
 - Review with UCC alternative design and construction approaches and cost implications and include within Stage 1 report.
- The Quantity Surveyor shall support the Carbon Co- Ordinator throughout this stage with reporting requirements associated with Whole Life Carbon and Life Cycle Costing in line with the Requirements of ICMS.
- Life Cycle Costing exercises used in the determination of products for Building Envelope / systems & Finishes / Cost Optimisation.

- In conjunction with the Design Team and UCC lead and actively participate in any value engineering exercises, life cycle costing and risk analysis requested by UCC. Any value engineering decisions shall be taken in conjunction with UCC representatives without comprising on performance.
- Repeat above design process indefinitely (other than for substantive UCC changes to brief) until design meets UCC's Brief and schedule of services requirements.

3.1.11 Cost Management

- Undertake the cost control and quantity surveying services for the total development budget, including construction costs, enabling work costs, external works fixed furniture and associated fittings, abnormal costs, professional fees and other specialist services, UCC direct costs, ICT/AV Data & Comms, BMS access control and fire-fighting equipment, loose furniture, fixtures and fittings, statutory fees, contributions, contingency and the like.
- Assist in the preparation of an order of magnitude cost to define the design scope in line with funding.
- Develop costs on initial proposals and alternative options for UCC consideration.
- Provide costs on the further development of selected options and alternative options and presentation of same to UCC.
- Identify and cost all abnormal works
 - Review, mitigate and fully justify each item and its cost in consultation with other D.T. members.
- Provide schedule of changes, if required to ensure that the design is within the approved-budget and on Programme.
- Assist in cost checking of the Design against the budget and provide all necessary information.
- Allow for inflation within all cost reports.
- Proactively and promptly advise UCC of any matter, which may increase the cost of completion the Project, including rises in inflation and other factors affecting the construction industry.
- Provide information and assistance to UCC in connection with normal VAT and tax considerations which arise in connection with the project.
- Prepare expenditure cash flow forecast, linked to the master programme activity duration, sequence and timetable.

3.1.12 Whole Life Cycle Costing

- Establish strategic WLCC issues and inform option selection
- Identify key WLCC drivers, such as:
 - Building form and compactness (heat loss ratio),
 - Façade to floor area ratio,
 - System complexity vs. maintainability,

- Energy performance standards; and
- Material durability and maintenance requirements.
- Develop high level WLCC option comparison matrix.
- Provide data sources utilised such as:
 - Benchmarking from similar projects,
 - Published data (CIBSE, SCSl, industry norms),
 - Energy modelling at concept level; and
 - Manufacturer's indicated maintenance schedules.
- Prove Key Ratio's including:
 - WLCC to capital cost ratio,
 - Operating cost per m² GIA per annum,
 - Energy cost per m² per annum; and
 - Maintenance cost as % of capital cost.
- Prepare and submit the WLCC Strategic Assessment Report including:
 - Option comparison matrix,
 - Key assumptions and exclusions,
 - Sensitivity analysis (discount rate, energy prices); and
 - Recommendations for cost-effective option

3.1.13 Risk Register

- Within one month of appointment, the design team lead shall prepare a detailed and comprehensive **Risk Management Plan**, (with contributions from all design team members) which will identify all significant risks associated with the project, analyse / rate the risks, set out proposals to manage the risks and set out plans to review the risks.
- The Design Team lead shall assist UCC in developing appropriate risk management strategies for dealing with and managing risk throughout all stages of the project. The Risk Management Plan shall examine all risks that could affect the projects safety, cost, programme or quality. Each risk is to be rated and scored, assigned an owner and provided with a mitigation strategy to minimise its impact on the project. The Risk Management Plan shall be updated on a two-monthly basis or at shorter intervals as determined by UCC should the project needs dictate shorter intervals.

3.1.14 Health & Safety

- Perform all necessary duties in compliance with the requirements of the Safety, Health and Welfare at Work (SHWW) (Construction) Regulations 2006. The SHWW (General Applications) Regulations 2007, SI 299 of 2007 and the SHWW Work Act 2005, compliance with the SHWW

(Construction) Regulations 2013 and any other relevant Health, Safety and Welfare Legislation in force at the time of the commission.

- Update the Designers Assessments of Risk for this stage and submit to the appointed PSDP.
- Take account of the UCC's Health & Safety Building in Use questionnaire.

3.1.15 Stage 1 Report (including repeat submissions as required)

- Quantity Surveying Cost Input into the Stage 1 Report.
- Assist the Design Team Lead to fulfil his duties in co-ordination and preparation of the Stage 1 Report.
- Signed Stage Completion Certificate.

3.1.16 Pre-Stage 1 Stakeholder Meeting

- Attend Pre-Stage 1 Stakeholder Meeting in University College Cork, or an alternative local as chosen by UCC.
- Repeat for each revised Stage 1 submission (if required) resulting from non-compliance by the Design Team as a group with area and cost limits, (excludes substantive UCC changes to the brief).

3.2 STAGE 2A – DEVELOPED DESIGN

3.2.1 Co-ordination of Project Stage

- Obtain written approval from UCC to commence stage.
- Assist the Design Team Leader to ensure co-operation of Design Team to provide all information necessary for Project Stage.
- Assist the Design Team Leader in reviewing, quality control and co-ordinating all information and Stage documentation with other DT member and ensure compliance with this design team procedures and scope of services.
- Review any implications for the proposed design arising from any Building Control Amendments, transition periods or proposed future amendments.
- Provide the UCC appointed Project Manager with sufficient notice for all UCC required approvals, decisions on matters that require any action by UCC, and where appropriate, assist UCC by providing recommendations and options.
- Assist the DT lead and ensure integration of designs of the other members of the Design Team.
- Prepare and co-ordinate all drawings & documentation in a software format this is compatible and allows the Design Team or UCC to provide clean drawings and documentational without additional cost.
- Allow for responding to all UCC queries within 2 days of being requested or sooner if required to maintain contract programme or for urgent matters.

3.2.2 Developed Sketch Design

- In conjunction with the DT Lead, advise DT members and UCC on the cost and contractual implications of the proposed design progression.
- Assess H&S hazards and risks for developed Sketch Scheme.
- Where part of brief, develop costs for work to existing buildings within the area and cost limits agreed.
- Carry out cost estimates for amendments, revisions or alterations as the design progresses.
- Prepare detailed costs plans in the agreed format supported by quantities and rates.
- Assist the DT Lead in developing and negotiation the designs proposed for the Works, identifying within such designs any specific areas which need to be expanded in more detail in order to facilitate accurate costings.
- Liaise with the Mechanical and Electrical Engineer in relation to costs associated with the building services and incorporate all M & E costs into cost plan.
- Allow for phased hand overs and enabling work packages.
- Assist in the preparation of a quality assessment.

- Provide schedule of changes, if required, to ensure that the design is within the approved Cost Plan and on Programme.
- The Quantity Surveyor shall support the Carbon Co- Ordinator throughout this stage with reporting requirements associated with Whole Life Carbon and Life Cycle Costing in line with the Requirements of ICMS.
- Advise on all contractual matters arising from this stage.
- Meet with UCC End-Users groups as necessary to fine tune and sign off on the design as it progresses.
- Value Engineering if required at this stage to keep project within the approved budget. Any value engineering decisions shall be taken in conjunction with UCC representatives without comprising on performance.
- Assist in updating and maintaining the Risk Register.
- Assist the DT lead in updating constructability report in line with design development.
- Assist the DT Lead in preparing the Procurement Strategy Report for Works Contractors.

3.2.3 Statutory Approvals

- Consult with statutory undertakers in relation to costs as necessary.
- Assist in preparing multiple applications for planning permission if reasonably required by UCC to facilitate the planning process, provided that such applications shall constitute only revisions of the original design.
- All statutory approvals are part of the scope of services. Where external expertise (e.g. Fire Specialists, Landscape Architect etc) is considered necessary by the Architect, the procurement and payment of that specialist (sub-consultant) is deemed to be included in the Design Team Fee.
- Preparing & submitting Statutory Approval Documentation including but not limited to
 - Planning Permission, including all subsequent Further Information Requests. In the case of a Strategic Housing Development Application, all necessary document required to form part of a successful submission.
 - Fire Safety Certificate Application as prepared by the Fire Engineering Consultant; and all subsequent amendments and revisions.
 - Any other statutory consents as deemed necessary.
- In the case of a Strategic Housing Development Application direct to An Bord Pleanála, all necessary documentations to ensure a positive outcome.
- In conjunction with UCC and the Design Team, assist to prepare, submit and process Planning Appeals, if required, but excluding participation in Public Hearings.
- The Design Team lead is to note that UCC is entitled under Article 157(1) of the Planning and Development Regulations 2001 to an exemption from the planning application fees.

3.2.4 Design Team Meetings / UCC Consultation

- Allow for fortnightly meetings (more if required) for UCC consultations (by Senior or Director) on site including travel time & expenses:
 - Prior to preparation of Stage 2a Report, and
 - To discuss and agree draft report.
- Allow for fortnightly meetings Design Team Meetings on site to coincide with UCC meetings.
- Allow for any other meetings as denoted in the meeting matrix and the Definitive Project Brief.
- Include for repeat consultation as above for all material changes to the design or Stage 2a report (excludes substantive UCC changes to brief).

3.2.5 Health & Safety

- Perform all necessary duties in compliance with the requirements of the Safety, Health and Welfare at Work (SHWW) (Construction) Regulations 2006. The SHWW (General Applications) Regulations 2007, SI 299 of 2007 and the SHWW Work Act 2005, compliance with the SHWW (Construction) Regulations 2013 and any other relevant Health, Safety and Welfare Legislation in force at the time of the commission.
- Update the Designers Assessments of Risk for this stage and submit to the appointed PSDP.
- Take account of the UCC's Health & Safety Building in Use questionnaire.
- Take account of UCC's Standard Operation Procedure 18 in determining the buildability of the project and ensure that all tendering contractors are aware of their obligations under SOP 18, and all other UCC Standard Operating Procedures.

3.2.6 Whole Life Cycle Costing

- Refine the WLCC analysis based on the developed design and inform value management.
- Develop component level analysis by providing detailed cost breakdown.
- Identify critical elements for detailed analysis
 - Buildings.
 - External envelope (walls, windows, roof),
 - Mechanical services (HVAC, BMS),
 - Electrical services (lighting, power, ICT),
 - Finishes (internal and external),
 - Vertical transportation (lifts/escalators); and
 - Renewable energy systems.
 - Civil Engineering.
 - Pavement structure and surfacing,

- Drainage systems,
- Structures (bridges, retaining walls),
- Lighting and signage; and
- Traffic management systems.
- Energy Modelling Integration.
 - Conduct Building Energy Rating (BER) analysis,
 - Model energy consumption for different system options,
 - Calculate 30-year energy cost projection; and
 - Consider future carbon pricing/taxation.
- Develop Maintenance Schedules
- Integrate value management and develop option analysis for key decisions.
- Develop and submit WLCC Analysis Report including:
 - Component-level cost breakdown,
 - Energy model results and projections,
 - Maintenance schedule with NPV calculations,
 - Value management option analyses,
 - Updated assumptions register; and
 - Sensitivity analysis.

3.2.7 Stage 2a Report (including repeat submissions as required)

- Quantity Surveying input into the Stage 2a Report including the preparation of the Executive Summary.
- Prepare Assist the Design Team Led to fulfil his duties in co-ordination and preparation of the Stage 2a Report.
- Include for amendments (other than for substantive UCC changes to brief) to comply with cost and area limits, and UCC's stated requirements, re-printing and re-submission as required.
- Signed Stage Completion Certificate.

3.2.8 Design Stage Review Meeting

- Attend Design Stage review meeting on UCC Campus and allow for repeat Design Stage Review Meeting resulting from non-compliance.

3.3 STAGE 2B – DETAILED DESIGN

3.3.1 Co-ordination of the Project Stage

- Obtain written approval from UCC to commence stage.
- Co-operate with Design Team Leader and provide all information necessary for the Project Stage.
- Assist in reviewing, quality control and co-ordinating all information and Stage documentation with other DT member and ensure compliance with this design team procedures and scope of services.
- Provide the UCC appointed Project Manager with sufficient notice for all UCC required approvals, decisions on matters that require any action by UCC, and where appropriate, assist UCC by providing recommendations and options.
- Assist the DT lead and ensure integration of designs of the other members of the Design Team.
- Prepare and co-ordinate all drawings and documentation in a software format this is compatible and allows the Design Team or UCC to provide clean drawings and documentation without additional cost.
- Allow for responding to all UCC queries within 2 days of being requested or sooner if required to maintain contract programme or for urgent matters.
- Undertake on behalf of UCC, the procurement of contractors and consultants, including specialists, novated, reserved, loose furniture and other UCC direct works packages, preferred suppliers including preparation of OJEU / E-tenders Notice, Suitability assessment questionnaires, project briefs, and all CWMF documents required at each stage, prequalifying contractors and presenting list for Client's approval including the following:
 - Being the one point of contact for queries, additional information, additional documentation specification etc.
 - Assessing the pre-qualification documents/requests to participate.
 - Responding to all queries raised by interested parties.
 - Understanding the prequalification of tenderers, checking submission against the prequalification criteria, marking up the submissions and presenting list for client approval.
 - Assist in the evaluation of Expressions of Interest and advise on and obtain the Client's approval for a list of tenderers for the building/engineering contract.
 - Attend interviews at PQQ and Tender stages.

3.3.2 Design Team Meetings / UCC Consultation

- Allow for fortnightly meetings (more if required) for UCC consultations (by Senior or Director) on site including travel time & expenses:
 - initial consultation to review brief and programme or work,

- prior to developing sketch designs and
- to discuss and agree draft report.
- Allow for fortnightly meetings Design Team Meetings on site to coincide with UCC meetings.
- Allow for any other meetings as denoted in the meeting matrix and the Definitive Project Brief.
- Include for repeat consultation as above for all material changes to the design or Stage 2b report (other than substantive UCC changes to the project brief).

3.3.3 Statutory Approvals

- Consult with Statutory Authorities as required for all statutory Permissions and associated conditions.
- Consult with Statutory Authorities as required for all statutory Permissions including Fire Certificate and Disability Access Certificate.
- Prepare and submit all statutory Approval applications.
- All statutory approvals are part of the scope of service. Where external expertise (e.g. Fire Specialists, Landscape Architect etc) is considered necessary by the Architect, the procurement and payment of that specialist (as a sub-consultant) is deemed to be included in the Architect's fee.
- Prepare and submit reports on Statutory Approval decisions (with recommendations) to UCC.
- Include for amendments to documentation and re-submission of revised applications for above (where reasons for refusal should reasonably have been anticipated).
- Allow for preparation and issue of supporting information required by Architect for Planning / DAC appeal.
- Allow for preparation and issue of information required for Fire Certificate appeal.
- Make revisions to cost estimate for project design to address requirements of Statutory Bodies in order to facilitate accurate costing.

3.3.4 Detailed Design

- In conjunction with the DT Lead, advise DT members and UCC on the cost and contractual implications of the proposed design progression.
- Assess H&S hazards and risks for developed Sketch Scheme.
- Where part of brief, develop costs for work to existing buildings within the area and cost limits agreed.
- Carry out cost estimates for amendments, revisions or alterations as the design progresses.
- Prepare detailed costs plans in the agreed format supported by quantities and rates.
- Assist the DT Lead in developing and negotiation the designs proposed for the Works, identifying within such designs any specific areas which need to be expanded in more detail in order to facilitate accurate costings.

- Assist with identifying the need for advance pre-tender action or pre-ordering of materials or equipment and seek UCC approval to proposals, including preparation of tender lists in conjunction with the appointed UCC Project Manager and other design team members for early action.
- Advise on the cost aspects of commissioning or selection of the fitted and loose furniture (including pre-qualification remarks) and fittings for the project; assist the DT and UCC with pre-qualification's, tenders and their installation.
- Review costs, through design and selection of materials ensure project is within approved budget. Prepare Works Requirements (Tender Documents) and including any additional requirements for compliance with the Building Control (Amendment) Regulations 2014 and the associated Code of Practice for Inspecting and Certifying Buildings and Works.
- Comply with UCC procedures and Standard Operating Procedures as they may apply to building design and construction to include fully co-ordinated plans, room data sheets and elevations of all rooms.
- Input into the Constructability Plan and as part of the constructability review provide site set-up drawings showing access, lay-down areas and contractor's compound.
- Pre-qualification and tender of Novated / Reserved Specialists in a timely manner to ensure project programme is maintained.
- Pre-qualification stage for the main contractor procurement.
- Assist in assessing all PQQ and submissions and determine whether each applicant meets the minimum standard, and if so, jointly mark with the (DT Lead) each qualifying applicant.
- Assist in the evaluation of Expressions of interest and advise on and obtain UCC's approval to a list of tenderers for the building / engineering contract, all in accordance with the CWMF.
- Review, assess, score and report on all contractor PQQ submissions.
- Prepare Bill of Quantities in accordance in ARM 5 or latest revision and all other Capital Works Management Framework (CWMF) documentation required for Tender incorporating all the requirements of Circular 01/16 including Mechanical & Electrical BoQ preparation. The BOQ also needs to be compatible with the requirements ICMS 3.
- Similar documentation as above required for enabling works or alternative direct works packages.
- Ensure that all Main Contractor and sub-contractor obligations under the Building Control (Amendment) form part of the tender documentation.
- Undertake the contractor / specialist / reserved / novated specialists procurement process in a timely manner to ensure project programme is maintained. (allow for 2 stage procurement process for all tenders).
- Issue novated / reserved / specialist contractors and novated suppliers Tender Documentation to UCC in electronic format in such a manner to allow the easy uploading to E-Tenders. Please note that the exception long use of folder and file names is not permitted and is to be restricted to a maximum of 60 characters.

- Prepare Instructions to Tenders, Forms of Tender and Schedule, letter of invitation and all other CWMF documentation required for Tender.
- Advise on completion of Standard Form of Contract.
- Prepare Tender Documentation for novated / reserved / specialist contractors and novated suppliers where appropriated.
- Advise on any relevant special conditions of contract and drafting of same.
- The Quantity Surveyor shall support the Carbon Co-ordinator throughout this stage with reporting requirements associated with Whole Life Carbon and Life Cycle Costing in line with the Requirements of ICMS.
- Along with the design team assist the Carbon Co-ordinator in their key actions & deliverables as follows.
 - Validate the Detailed inventory using ICMS 3 compatible BOQ.
 - Identify low Carbon materials options and performance requirements.
 - Accurate Whole Life Cycle Costing for building using BOQ.
 - Whole Life Cycle costs meets the specified target and forms part of the contractual performance requirements in the tender documents.
- Develop budgets for and procurement of the loose furniture, fittings and equipment for the Project.
- Attend all Contractor interviews (at both stages of a restricted tender process).
- Prepare Tender Documentation for the main contract in accordance with the CWMF.
- Advise on the evaluation criteria for assessment of the Most Economically Advantageous Tender (MEAT).
- Ensure all pricing and any other documentation necessary for the placing of the construction contract are completed and fully co-ordinated in accordance with the brief approved by UCC.
- Prepare and submit the provisional pre-qualification report to UCC.
- Assist in updating and maintaining the Risk Register.
- Revise all design documentation resulting from any value engineering to bring the project in line with the approved budget. Any value engineering decisions shall be taken in conjunction with UCC representatives without comprising on performance.
- Cost Check tender documents prior to tender against the relevant allowance in the Budget Cost Plan.
- Prepare and submit the Pre-Tender Estimate incorporating Mechanical & Electrical costs from M & E Consultants. The Pre-Tender Estimate shall be based on a fully priced BoQ and this document shall be furnished to UCC.
- Assist the DT Lead in preparing the Procurement Strategy Report for Works Contractors.

3.3.5 Health & Safety

- Perform all necessary duties in compliance with the requirements of the Safety, Health and Welfare at Work (SHWW) (Construction) Regulations 2006. The SHWW (General Applications) Regulations 2007, SI 299 of 2007 and the SHWW Work Act 2005, compliance with the SHWW (Construction) Regulations 2013 and any other relevant Health, Safety and Welfare Legislation in force at the time of the commission.
- Update the Designers Assessments of Risk for this stage and submit to the appointed PSDP.
- Assess H&S hazards and risk for detailed design. Determine appropriate level of risk transfer.
- Take cognisance of the UCC Building in Use Safety Questionnaire; complete and submit to UCC upon conclusion of Stage 2b.

3.3.6 Stage 2b Report (including repeat submissions as required)

- Liaise with other DT members during preparation of Bill of Quantities.
- Manage and co-ordinate assembly of Tender Package(s) (Using appropriate Public Works Contract).
- Assist the Design Team lead in co-ordinating, project managing, and overseeing the preparation of the Stage 2b Report.
- Include for amendments to comply with UCC guidelines, cost and area limits, and UCC's stated requirements (other than for substantive UCC changes to brief), re-printing, re-submission and meetings with UCC all as required.
- The Pre-tender Cost Check.
- Signed Stage Completion Certificate.

3.3.7 Whole Life Cycle Costing

- Finalise WLCC analysis for tender evaluation and contract performance requirements.
- Validate Component Specifications:
 - Confirm specified products/systems,
 - Obtain manufacturer's warranty and maintenance data,
 - Verify design life assumptions; and
 - Confirm replacement costs with suppliers.
- Integrate with ICMS 3 / CC1 Template: Align WLCC analysis with cost and carbon template structure:
- Cashflow Projection: Develop year-by-year cashflow for budget planning:
- Undertake a Risk and Sensitivity Analysis to test key assumptions such as
 - Energy price escalation: $\pm 25\%$,
 - Maintenance cost escalation: $\pm 15\%$,

- Discount rate: 3%, 4%, 5%; and
- Component life: $\pm 20\%$.
- Prepare and submit the final WLCC Report including:
 - Complete NPV calculations aligned with ICMS 3,
 - Year-by-year cashflow projection,
 - Performance specification (if applicable),
 - Risk and sensitivity analysis,
 - Validation of all assumptions; and
 - Comparison with original strategic assessment.

3.4 STAGE 3 TENDER ACTION

3.4.1 Co-ordination of the Project Stage

- Obtain written approval from UCC to commence stage.
- Co-operate with design team leader and provide all information necessary for Project Stage.
- Assist in reviewing quality control and co-ordinating all information and stage documentation with other Design Team members and ensure compliance with the Design Team Procedures.
- Prepare and co-ordinate all drawings and documents in a software format this is compatible and allows the Design Team or UCC to provide clean drawings and documents without additional cost.
- Allow for responding to all UCC queries within 2 days of being requested or sooner if required to maintain contract programme or for urgent matters.
- Undertake on behalf of UCC, the procurement of contractors and consultants, including specialists, novated, reserved, loose furniture and other UCC direct works packages, preferred suppliers including preparation of OJEU / E-tenders Notice, Suitability assessment questionnaires, project briefs, and all CWMF documents required at each stage, prequalifying contractors and presenting list for Client's approval including the following;
 - Being the one point of contact for queries, additional information, additional documentation specification etc.
 - Assessing the pre-qualification documents/requests to participate.
 - Responding to all queries raised by interested parties.
 - Understanding the prequalification of tenderers, checking submission against the prequalification criteria, marking up the submissions and presenting list for client approval.
 - Assist in the evaluation of Expressions of Interest and advise on and obtain the Client's approval for a list of tenderers for the building/engineering contract.
 - Attend interviews at PQQ and Tender stages.

3.4.2 Tender Action

- Issue Tender Documentation to UCC in electronic format in such a manner to allow the easy uploading to E-Tenders. Please note that the exception long use of folder and file names is not permitted and is to be restricted to a maximum of 60 characters.
- Assist UCC in ensuring compliance with European Procurement Directives and national procurement guidelines.
- Allow for printing tender documents (hard copy) for the chosen CWMF Tender procedure (open or restricted).

- Allow for assembly of documents on CD or in electronic format. Include for one hard copy for record purposes and one (or more as required) for validation and signature by apparently successful Contractor.
- Deal with matters arising during the tender period including co-ordination of Tender Questions and Answers and ensure any communications with any tenderer is confirmed in writing and sent to all other Consultants.
- Ensure that all correspondence to any Tenderers during the Tender Period is compiled on the UCC Clarification and Addendum Spreadsheet and issued to UCC for uploading onto the E-Tenders Portal.
- Attend site walk-downs with all contractors during the Tender process.
- Actively participate in MEAT evaluation of contractors for both price and qualitative.
- Review, assess, score and report on all contractor submissions.
- Attend Contractor interviews.
- Review all tender documentation and / or draft contract documentation relating to the building contracts and any related sub-contracts. Report to UCC on any queries arising out of such documentation. Assist in identifying any changes required to be made to such documentation.
- If necessary and in conjunction with other design team members produce a list of revisions that may be made to tender documents to achieve tenders within the approved cost limit, for approval by UCC.
- Advise on the suitability of any proposed contractor / sub-contractor to carry out the works and comment on preparation of formal sub-contract documentation relating to accepted tenders for carrying out the works or any part thereof.
- Review Tender Submissions in consultation with other DT members allowing for all work required including all communication and meetings with Tenderers.
- Examine, appraise and report on tenders submitted in consultation with DT members and UCC.
- Seek an independent financial check on any tenderer under consideration.
- Prepare the preliminary Tender Report. (with input from other DT members) identifying the recommended Contractor. Implementation of actions required to obtain a tender acceptable to UCC within the approved cost limit.
- Issue list of post tender clarifications to contractors, arrange tender clarification meetings, chair and record minutes of clarification meeting and issue to DT members & UCC for comment prior to issue to the contractor.
- Preparation of expenditure cashflow forecast.
- Prepare Notification letters to successful / unsuccessful tenders and Letter of Acceptance for UCC's approval. All letters to be issued by UCC on UCC headed paper.
- In conjunction with DT members, advise UCC on the appointment of the Contractor and advise on the responsibilities of the parties and the architect under the building contract.
- Provide a detailed **tender** breakdown in a format prescribed by UCC to include;

- Main Contractor Build Cost
- Enabling Works Cost
- Other construction Costs
- Fixed Furniture Costs
- Loose Furniture Costs
- Site Investigation
- Asbestos Removal
- 3rd Party Surveys
- External Works
- Abnormal Costs.
- Statutory Approval Costs
- Utility Costs.
- Prepare and submit to UCC a Tender and Procurement Report (Main Contractor and all Novated / Specialist etc) to include the following documentation;
 - E-Tenders / OJEU Contract Notice / PIN Notice.
 - List of Interested Parties.
 - Pre-qualification Documentation.
 - Schedule of Tenders Queries / Answers / Addendums.
 - Scoring Matrix and report on selection process.
 - List of shortlisted contractors and unsuccessful contractors.
 - ITT documentation.
 - Tender Opening Form.
 - Tender Analysis and MEAT scoring Matrix
 - Record of Clarification(s).
 - Recommendation and award of contract in liaison with other DT members of the project team.
 - Notification Letters to Successful / Unsuccessful tenders.
 - Contract Award Notice.
- Assist in updating and maintaining the risk register.
- Advise on any Contractual matters arising during the stage.

3.4.3 Tender Report

- Preparation of the Tender Report. Liaise with DT Lead and other DT members during preparation of Tender Report.

- Include for all necessary clarification meetings with the apparently successful tenderer.
- Stage Completion Certificate signed by all Parties.
- Comply with the CWMF guidelines on the procurement of reserved specialists (if used).

3.4.4 Design Team Meetings/UCC Consultation (On site)

- Allow for fortnightly meetings (more if required) for UCC consultations (by Senior or Director) on site including travel time & expenses.
- Allow for fortnightly meetings Design Team Meetings on site to coincide with UCC meetings.
- Allow meeting prior to submission of Tender Report.
- Allow for any other meetings as denoted in the meeting matrix and Definitive Project Brief.

3.4.5 Appointment of Contractor

- Allow for all work associated with Notification Letters and pursuing necessary clarifications/documentation. (Repeat as required until suitable Contractor appointed.) (DT Lead with co-operation and assistance of other DT members).
- Issue Alcatel letter to apparently unsuccessful tenderers and de-brief in connection with UCC as required including requirements of Remedies Directive.
- Obtain written approval from UCC to prepare and issue the Letter of Acceptance. Allow for all work associated with same.
- Draft and agree with UCC the OJEU and EU contract notice for contractor and specialist appointment and issue to UCC for uploading onto E-Tenders.
- Prepare the building contract, obtain approval for same and arrange for it to be signed. (refer to UCC's Schedule of Contract Documentation).
- Ensure the project has being registered on the Building Control Management System.

3.5 STAGE 4 CONSTRUCTION

3.5.1 Commencement Notice (Architect as Design Certifier & Assigned Certifier)

- Assist the Design and / or Assigned Certifier in the preparation of the documentation required for inclusion with the Commencement Notice in compliance with the Building Control (Amendment) Regulations 2014 and lodge with Building Control Authority.

3.5.2 Co-ordination of Project Stage

- Co-operate with Design Team Leader and provide all information necessary for Project Stage. Review, quality control and co-ordinate all information required with other DT members and ensure compliance with UCC's Design Team Procedures.
- Prepare and assist the ER with a comprehensive Risk Assessment for UCC at various stages on all contractual claims & items referred to conciliation in accordance with CWMF guidelines.
- Assist in updating and maintaining the risk register.
- Assist in the administration of any UCC changes during the construction period and advise on potential cost implications.
- Print, reproduce or purchase all documents, drawings, maps, photographs and other records necessary for the proper performance of the Services.
- Prepare and co-ordinate all drawings and documents in a software format this is compatible and allows the Design Team or UCC to provide clean drawings and documents without additional cost.
- Allow for responding to all UCC queries within 2 days of being requested or sooner if required to maintain contract programme or for urgent matters.

3.5.3 Employer's Representative

- Allow for all work associated with assisting the Employer's Representative to undertake their duties under the contract.
- Provide to the ER & UCC a detailed analysis, valuation and recommendation in relation to the works notification of claims as received from the contractor.
- Assist the ER in ongoing construction cost control, processing claims within time limits in Clause 10.5 of the Contract.
- Allow for all additional work including contract prolongation (other than for Contract prolongation consequent to Contractor liquidation).
- Allow for attending the Project Board meeting where required for the duration of the construction stage and following on any actions as required.

3.5.4 Contract Administration

- Allow for all work (relevant to professional discipline) necessary for the effective administration of the Contract, including close co-operation communication and information exchange between DT members.
- Advise on all contractual matters arising.
- Allow for responding to all contractor queries within the time limitations of the contract and where required sooner to mitigate against time delay.
- Deal with interim payments in accordance with Clause 11 of the Contract, including confirmation on contractor compliance with conditions precedent to payment, liaise with ER where required.
- Assist to determine where possible, any dispute or difference relating to the works, which may arise between UCC and the Contractor and / or sub-contractor. Input on decisions where possible on delays, request for extensions of time and the consequences of acceleration or disruption.
- Assist the ER in developing & managing a contract correspondence log.
- Evaluate all such notices in association with other design team members as necessary and present conclusions to client.
- Evaluation, negotiation and settlement of any contractual claims.
- Negotiate delay /disruption claims on a contract if such claims arise.
- Advise on all matters arising out of Clause 12 of the contract termination.

3.5.5 Site Inspections and Meetings

- Allow for Director/Senior visiting site at least once a fortnight including travel time & expenses.
- Allow for concurrent Site Meetings at least twice a month and UCC consultation meetings as required by UCC.
- Monitor and inspect the works as being executed by the Contractor on site to ensure payment recommendations are in line with the works.
- Assist the Design Team lead in issuing to UCC in conjunction with the fortnightly walk-down a report covering quality and progress.
- Attend all monthly cost control meetings with main contractor, specialists and direct contractors.
- Attend workshop meetings between all relevant parties to address and mitigate Project Risk Register.

3.5.6 Cost Control

- Manage the implementation of the approved cost control systems through the duration of the Project and supervise all project cost control activities on behalf of UCC.

- Cost check issued information and monitor against Budget Cost Plans allowances.
- Cost check and actively monitor instructions prior to issue, identifying Budget Cost Plan variances.
- Establish and implement procedures for the regular monitoring of the value of the works as they progress, including all building and Engineering Services costs and variations. Identify the documentation expected to be made available relating to these activities and, by liaising with all DT Members, seek access to all such documents.
- Bring to the attention of the Client/Project Manager any concerns as to the value and progress of the works being certified.
- Assist the ER to establish and implement a Change Control Procedure for the management of all alterations to the Client's requirements and/or Contractor(s) obligations. Assist in identifying the cost and effect of such requirements on the completion date under the building contracts or on the development Programme.
- Maintain a Cost Management system and prepare monthly cost reports until the issue of Final Certificate on expenditure in relation to the Budget or Contract Sum. Establish a cost management system for informing the Client immediately if the expenditure under any Contract has or may reasonably be anticipated as likely to exceed the allowance in the Budget or Contract Sum.
- The quantity surveyor is responsible for advising the ER on all contractual matters that arise during the project.
- Agree costs, comment on time & recommendation to ER on all delay and compensation events within the permitted timelines.
- Allow for cost advice & administration of any UCC and End-User changes during the construction period and in conjunction with M & E Consultant, advise on potential cost implications.
- Agree costs and detailed review and comment on all contractual notices including recommendation to ER within permitted timelines with emphasis on the following:
 - Clause 4.6 Changes to works proposals and 4.8 value engineering proposals.
 - Clause 4.7 Contractors' submissions.
 - Clause 9.3 Delay and extension of time.
 - Clause 9.5 Omissions and Reduction in time.
 - Clause 9.8 L&A damages.
 - Clause 10.3 Contractors' Claims.
 - Clause 10.4 Proposed Instruction.
 - Clause 10.7 Delay costs.
 - Clause 10.8 Price variation.
 - Clause 10.9 Employer's Claims.

- Value credits in respect of defective workmanship.
- Detailed review and comment on programme delays.
- Detailed review and comment on all contractor claims.
- Complete a comprehensive Risk Assessment for the client at various stages on all contractual claims & items referred to conciliation in accordance with CWMF guidelines.
- Ensure that M&E cost reports prepared by Mechanical & Electrical Consultants form part of a monthly cost report. Review and comment on same prior to incorporation into monthly report.
- Schedule of workshop meetings between all relevant parties to address and mitigate Project Risk Register.
- Manage the implementation of the approved cost control systems to be approved through the duration of the Project and supervise all Contract cost control activities on behalf of the Client.
- The Quantity Surveyor shall support the Carbon Co- Ordinator throughout this stage with reporting requirements associated with Whole Life Carbon and Life Cycle Costing in line with the Requirements of ICMS.
- Assist in resolution of notifications of claim prior to the conciliation process.
- Allow for administration and agreeing of costs of client changes during the construction period.
- Process all such submissions in accordance with contractual requirements and present to client for approval.
- Preparation of monthly expenditure cash-flow forecasts.
- Attend site walk-downs prior to progress meetings.
- Value Engineering, if required at this stage, to keep project within budget. Any value engineering decisions shall be taken in conjunction with UCC representatives without comprising on performance.
- Advise on all contractual matters arising during this stage.
- At least ten working days prior to the anticipated completion of the Works, with assistance of other consultants, establish the cost implications of a schedule of outstanding works still to be completed prior to the issue of Substantial Completion.

3.5.7 Whole Life Cycle Costing

- Ensure as-built condition aligns with WLCC assumptions
- Monitor Value Engineering Proposals, including:
 - Assess WLCC impact on any contractor VE proposal,
 - Require WLCC analysis for any material substitutions; and
 - Reject proposals that compromise whole life performance.
- Validate Installed Systems
 - Confirm specified products have been installed,

- Verify warranty documentation; and
- Ensure maintenance manuals are comprehensive.
- Update WLCC Model:
 - Adjust for any approved changes; and
 - Prepare as-built WLCC report for handover.

3.5.8 Building Control (Amendment) Regulations 2013

- Undertake and perform its duties and obligations in accordance with the Code of Practice for Inspecting and Certifying Buildings and Works.
- Allow for all works in assisting the Design and Assigned Certifier in undertaking their duties in accordance with the Code of Practice for Inspecting and Certifying Buildings and Works.

3.5.9 Project Reviews

- Prepare and submit a Project Review to UCC together with each Interim Certificate (DT Lead jointly with QS and input from other DT members as required).

3.5.10 Dispute Management Procedure

- Comply with the requirements of the Public Works Contract procedures for dispute management and any other procedural requirements imposed by the appointed Conciliator.

3.5.11 Conciliation and Arbitration

- Allow for maintaining up-to-date project files. [Excluding case preparation; associated research; assembly, printing and issue of documents required, and attendance at hearings.

3.5.12 Contractor Liquidation/Termination

- Allow for cost of administering termination of Contractor (including application of all relevant contract clauses). [Excludes preparation of detailed schedule of work completed to date and all other work associated with termination/liquidation.

3.6 STAGE 5 HANDOVER AND FINAL ACCOUNT

3.6.1 Co-ordination of Project Stage.

- Co-operate with the Design Team Leader and provide all information necessary for Project Stage. Review, quality control and co-ordinate all information required with other DT members and ensure compliance with UCC's Design Team Procedures.
- Attend all meetings post substantial completion to close out all outstanding issues.

3.6.2 Substantial Completion.

- Assist the Design Team Lead in co-ordinating, project managing, and overseeing the preparation and delivery of the building information pack for UCC at handover.
- At least ten working days prior to the anticipated completion of the Works, with assistance of other consultants, establish the cost implications of a schedule of outstanding works still to be completed prior to the issue of Substantial Completion.
- Advise on any insurance cover requirements and associated reinstatement valuations, particularly in relation to sectional completion, prior to handover.
- Ensure all elements of work required for completion of all contract related works are completed in a timely manner.
- Agree all costs on all outstanding delay and compensation events within the permitted timelines & issue recommendations to ER.
- Review of contractors' final statement and agree all costs associated with delay, compensation events and contractual claims within the permitted timelines as per Clause 11 of the contract & issue recommendations to ER.
- Preparation of relevant documentation for client's final statement / final payment recommendation.
- The Quantity Surveyor shall support the Carbon Co- Ordinator throughout this stage with reporting requirements associated with Whole Life Carbon and Life Cycle Costing in line with the Requirements of ICMS, and utilising the Cost and Carbon templates provided by the CWMF.
- Attend all meetings post substantial completion to close out all outstanding cost and contractual issues.
- Allow for phased handover and multiple substantial completion certificates.
- Assist the PSDP in compiling the Safety File / UCC Digital Project Manual.
- Advise on all contractual matters that arise at this stage.

3.6.3 Final Account

- Prepare and submit the Draft Final Account Summary for approval.

- Allow for all work necessary in agreement of Final Account with Contractor and UCC and attending meetings as required (including travel and expenses) and preparation of Final Account Report as per the Design Team Procedures.
- Assist in the preparation and submitting of the Final Account Report (supplement) on completion of the Defects Period.
- Prepare and submit a final account report to the Client on conclusion of the contract final account.

3.6.4 Defects Period

- Assist the ER in confirming the defects liability period.
- Allow for all works necessary to administer defects liability period including site visits as required.
- Establish if reasonably necessary the cost implications of a list of defects of work, if any, one month before the end of the Defects Liability Period.
- Instruct the contractor via the ER on any urgent defects which require immediate attention.
- Assist UCC in the occupation phase of the phase of the project, particularly in relation to any unforeseen difficulties in relation to the function or operation.
- Issue of final payment recommendation releasing all retention on completion of the defects period and issue of final completion certificate