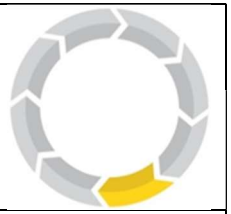
STAGE OVERVIEW - RIBA Plan of Work

Stage 3- Spatial Coordination



Stage Outcome

Architectural and engineering information **Spatially Coordinated to Elemental Cost Plan**

Stage 3 results in a Spatially Coordinated design. It is crucial that the client team and design team understand the stage outcomes and the tasks required to achieve them, as well as the impact that preparing Employer's Requirements or a Planning Application might have on the Information Requirements and tasks to be undertaken. Elemental costs and budgets should be aligned.

Early technical contractor design/ specialist design should be defined.

Stage Overview

The RIBA Plan of Work Overview says:

Stage 3 is fundamentally about testing and validating the **Architectural Concept,** to make sure that the architectural and engineering information prepared at Stage 2 is Spatially Coordinated before the detailed information required to manufacture and construct the building is produced at Stage 4.

During Stage 3, the Concept Design is further developed and, crucially, the design work of the core designers is progressed until the spatial coordination exercises have been completed between the main design disciplines. This process may require a number of iterations of the design and different tools may be used, including design workshops.

Detailed Design Studies and Engineering Analysis are undertaken to ratify the assumptions made during Stage 2 and to layer more detail onto the design. **Stage 3 is not about adjusting the Architectural Concept**, which should remain substantially unaltered, although detailed design or engineering tasks may require adjustments to make sure that the building is Spatially Coordinated. Changes to the Architectural Concept, for whatever reason, should be agreed via a Change Control Procedure.

Design Studies should be aligned to Cost Exercises and the development of the Outline Specification – **iterations of the design may be required to ensure the Cost Plan aligns with the Project Budget.** Product suppliers and specialist subcontractors might be consulted to test or conclude specific aspects of the design. A Spatially Coordinated design allows each designer, including specialist subcontractors, to finalise their information at Stage 4 (except for minor tweaks at interfaces) without further major iterations of the design.

The Project Strategies need to be updated and additional detail added, and a Building Regulations review undertaken. A Stage 3 Design Programme is created to make sure that the right tasks are undertaken at the right time. At the end of Stage 3, once the client has signed off a Stage Report that captures all the design development work undertaken during the stage, a Planning Application can be submitted.

NOTE: When a Planning Application before the end of Stage 3 is being considered, it is important to set a mid-stage gateway and focus on the tasks necessary to ensure that the threshold of information required for an application is achieved, and that the design is robust enough for development once planning consent has been obtained.

NOTE: On some projects, Employer's Requirements might be issued at the end of Stage 3 rather than in Stage 4. This documentation may require some elements of the design to be drawn to a higher level of detail, or require schedules or detailed specifications to be produced, to help remove risk from the procurement process and set the Quality Aspirations. This is a drawdown from Stage 4 activity and might be undertaken at the end of Stage 3, after the Stage Report has been signed off.

TVC Stage Overlay Guidance:

- **End-users** or their representatives are actively involved in the design process- depending on the Soft Landings or other strategy adopted.

- **Elemental Cost Plan** will be further developed during Stage 3, broken down into products and systems. Having monitored the costs through design development there should be limited need for value engineering.
- **Cost Information/ end of stage elemental cost plan** aligned to the **Project Budget.**
- **Cost Information** verified and incorporated adequate allowances for project strategies.
- **Building services design** will be developed in accordance with BSRIA BG 6 Proforma 3 – Developed design. By the end of this proforma, the design team has arrived at a design where each discipline has its allocated volumes within the building. From a building services perspective, there is sufficient evidence to show that the services volume is sufficient to contain the building services, and it is consistent with all project strategies. Services treatments in rooms and spaces are scheduled in performance terms.
- **Architectural, building services and structural engineering designs** will all have been developed, and will have been checked by the lead designer, with the stage design coordinated between disciplines.
- **Planning Application** will be prepared based on Stage 3 information and submitted to the local authority- depending on the Consenting Strategy
- **Project Strategies** that were prepared during Stage 2 should be developed further and in sufficient detail to allow the client to sign them off once the lead designer has checked each strategy.
- **Change Control Procedures** should be implemented to ensure that any changes to the Concept Design are properly considered and signed off, regardless of how they are instigated.
- Specialist subcontractors will undertake their design work at Stage 4; they may provide information and guidance at Stage 3 in order to facilitate a more robust developed design.
- **Building Warrant** review undertaken.
- **Stage 3 Design Programme** created to make sure that the right tasks are undertaken at the right time. At the end of Stage 3, once the client has signed off a Stage Report that captures all the design development work undertaken during the stage, a Planning Application can be submitted. Ideally 60% of the design should be complete (especially important where the client is handing over design responsibility to the contractor).
- **Validation** should be undertaken at each stage to ensure achievement of project outcomes and objectives: the client should regularly check and gain assurance that emerging design is addressing all Project Outcomes & Objectives. In response to this, the design team should regularly check and demonstrate to client, alignment of emerging design with Project Outcomes & Objectives. The **SFT Briefing & Evaluation Framework** should continue to be adopted to support this exercise.

Stage Details- Skills and Expertise

- The lead designer and design team are key to this stage.
- The client team are involved where Stage 3 coordination requires client decisions & validation.
- The cost consultant is critical for defining the end of stage elemental cost plan and budget alignment.
- The construction team may also be involved if the selected procurement route requires early contractor or specialist subcontractor inputs/ technical design input is required.

All Parties

- This is a critical stage of project development and delivery that require collaboration across the client and specialist consultant team, utilising a range of skills to realise the best outcomes.
    - Gateway review- **Gateway 3**- will ensure key information is validated
    - **Management/ Risk Management** is critical, with project programme- prepare, monitor and updates- and meeting schedules to drive collaboration and validation- risk/ quality and values.
    - Developing and contributing to **the Health and Safety Strategy.**

Client

- This stage is focussed on maintaining **Governance and Approvals,** validating stage 3 to ensure details are in place for the **Gateway 3** review.
- Specifically responsible for and continuing to lead on the following:
    - Approving **design reports**
    - Design responsibilities include approval of the **ICT strategy**.
    - **Information Management** and providing, maintaining and managing Common Data Environment.
    - Quality across the project is led by the client, whose responsibility includes develop, maintain and implement **Client Construction Quality Plan**
    - **Environmental Impact Assessment** is where the client supports the achievement of the **client's sustainability objectives** and the Scottish Government's commitment for Scotland to become a net-zero society

Project Management
• Project management skills and expertise are required to support the client to move through **Gateway 3 validation,** and will be specifically responsible for, collaborating with design team members and the client: ○ Authorising/ managing **change control process** ○ Management tasks including the **PEP and Project Programme, monthly project reports** ○ Supporting the team across **Risk Management**, specifically the **risk register.** ○ **Design responsibility**- including the design responsibility matrix, participating in **design review** ○ Oversight across statutory consents- especially the **Pre-Application consultation**. ○ Oversight and validation of **cost-** working with the cost consultation on the **elemental cost plan and cashflow** and supporting the client to manage **consultant fee expenditure**.
Design Team/ Specialists
• **Design, cost and building specialists** are critical to this stage- supporting the client/ PM in finalising the design and maintaining governance: ○ **Governance and approvals** will require a **compliance specialist.** ○ **Management stages** will be informed by cost/ all consultants covering the **design programme, project reporting end of stage cost plans and change control oversight**. ○ **Risk Management-** all specialists to contribute to workshops and the cost consultant in particular to provide qualitative information. ○ **Design tasks-** design, cost and building specialists across quality management calculation against outcomes, developing design proposals in sufficient detail, building services, space planning and other core **strategies**. ○ **Information Management-** BIM information management experts alongside the design team to provide information co-ordination ○ **Statutory Consents- design team specialists, supported by the client** will be responsible for pre and submission of the planning applications (and may be required to oversee conditions and wider section 75 agreements etc) and will undertake strategies that will inform/ integrate with the design (adaptation and SUDs etc).

- **Building Performance-** MEP systems, strategies and tools will be delivered by **MEP specialists and the design specialists** and inform/ integrate with the design.
- **Cost- Cost consultant** expertise will help the design team and client to define a detailed **Elemental Cost Plan**.
- **Quality- all specialists** should be appointed to retain 'ownership' of design quality throughout the project stages, maintain the **'Golden Thread'**.
- **Environmental Impact Assessment- planning and design specialists, Net Zero Carbon, Whole Life** etc expertise are necessary to complete EIA requirements.

Construction

- The construction team are not engaged across this stage.
- Specialist input to the design brief/ client requirements may be required from construction/ technical specialists to ensure the Elemental Cost Plan is robust and can be validated through **Gateway 3.**

Asset Management

- Asset Management skills and Facilities Management expertise are essential in the development of the design.
  - **Building in Use** tasks - involve the whole life consultant and operations/ FM team to contribute to the design process.
  - **Commissioning, Testing and Handover-** MEP, Whole life, Ops/ FM expertise to develop and validate the **commissioning strategy**.

Stage Outputs and Validation

All Parties

- **Gateway 3 Validation**
- Risk Management Plan
- Meeting Schedules

Client

- Governance

• Cost Reports and end of Stage cost plans • Design Reports • ICT report • Common Data/ SIMP • Health and Safety • Consultant fees • Quality Plan
Project Management
• Management- Programmes/ change control procedure. • Risk Register • DRM • Fee expenditure
Design Team/ Specialists
• **Elemental Cost Plan**- Stage 3 • Design reports • Quality management plan • Stage design proposals • Design strategies • Room Data sheets • Building services framework • Utilities, flood, SUDs, energy, thermal, sustainability, acoustic, Passivhaus etc strategies- standards to inform design • EIR- SIMP/ BIM models • Statutory consent application (packages) • EIA
Construction
N/A

Asset Management
• Project Commissioning Strategy

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STAGE DETAILS	STAGE BASED VALIDATION	CHECK YES/NO
Pre- Project, Strategic Capital Investment & Governance Approach		
N/A		
Defining Project Requirements		
N/A		
Brief		
N/A		
Governance and Approvals	**Ensure the client requirements include stage 1 brief validation, project business case and any stage completions- authorise project to commence to the next stage. Validate consultant/ contractor recommendations against the client requirements and gateway requirements.**	
Confirm and Authorise changes to Project Brief	Approved **Brief** having ensured the changes have been cross checked with project vision and objectives/ business case and budget. The stage 3 report has also been signed off.	
Ongoing validation to ensure achievement of project outcomes and objectives: regularly check and gain assurance that emerging design is addressing all Project Outcomes & Objectives	There is an agreed process for **validation** to track compliance as well as derogations or variations and it has been applied (updated RAG status). • Targets / metrics • Specification • Regulations / standards • Flow / adjacencies / etc • Updated Cost Plan • Stakeholder feedback	

STAGE DETAILS	STAGE BASED VALIDATION	CHECK YES/NO
	• Others to be defined by the Client	
Project Business Case - prepare, maintain and obtain required approvals	**Project (FBC) Business Case updated/ maintained and approved** (justifying the project's value with detailed costs, benefits, and risks etc as a sound and viable investment)- taking into account considerations set out in Stage 0.	
Approve Stage Reports & Stage completion	**Approved Stage Reports & Stage completed** - defined the stage outcomes/ high level statements of the core outcomes expected at the end of each stage.	
Authorise Project to commence next Stage	**Authorised Project to commence next Stage** to approved process and agreed process.	
Authorise risk/ contingency expenditure, within authorised delegation limits.	**Risk/contingency expenditure** authorised, within authorised delegation limits.	
Authorise project changes via formal Change Control process	**Authorised project changes via formal Change Control process**, co-ordinating the final changes to the design before it is fixed.	
Building Design Compliance Reviews	**Building Design Compliance Reviews** completed, having: • allocated enough time and resource for the building work to comply with building regulations • established, reviewed, and maintained systems and arrangements to meet building regulations • co-operated with others working on the project so they can comply with their duties • enabled co-operation between designers and contractors Ensured you have you provided building information to every designer and contractor working on the project. Building information relates to: • the building work or design work • the planning and management of the project	

STAGE DETAILS	STAGE BASED VALIDATION	CHECK YES/NO
	• any issues involving compliance with relevant requirements and how they have been addressed	
Arrange and Participate in Gateway Reviews	Consultants/ specialist advice/ contractor teams participated in **Gateway Reviews**. Consultants/ specialist advice/ contractor teams' involvement is accounted for in their scopes of service and terms of engagement/ appointments and details of responsibility	
Project Management	**There should be clear planning, organizing, and management of resources to achieve a specific goal within defined constraints of time, budget, and scope. Critically there should be project objectives, a detailed plan, clear leadership of the project team, management of risks, monitoring progress, and ensured the project's quality and successful completion.**	
Project Execution Plan (PEP) - prepare & maintain	**Project Execution Plan** (PEP) prepared/ maintained (collaboration of the client/ project manager and principal or lead designer) as the projects management plan (the processes and protocols to be used to develop the design). A spreadsheet (rather than a report) format will provide a database that can easily be expanded and tested (as the project develops).	
Project Programme - prepare, monitor and update	**Project Programme** prepared, monitored and updated following workshop session and sets out the overall period/ sequence in which tasks must be carried out- covering all plan of work stages (0-8) briefing, design, construction and post completion activities of a project. The programme should define the interrelated projects that are required to complete the overall building. A number of interrelated programmes are required (client/ operational and evaluation) for example.	

STAGE DETAILS	STAGE BASED VALIDATION	CHECK YES/NO
	This should be considered a tool that can help plan activities, monitor progress and identify where additional resources may be required, for example.	
Design Programme- prepare, monitor and update	**Design Programme** prepared, monitored and updated. The programme should define the interrelated projects that are required to complete the overall building. A number of interrelated programmes are required (client/ operational and evaluation) for example. This should be considered a tool that can help plan activities, monitor progress and identify where additional resources may be required, for example.	
Project Report - prepare (monthly) project reports, providing status update, identifying risks and issues to inform Client decision making	**Project Report** prepared (monthly), providing status update, identifying risks and issues to inform Client decision making. The requirements for end of stage reports should be set out in scopes of services and the reporting aligned with the programme and budget/ cost planning Time has been allowed for review and validation of the reports in the consultants' programme.	
Project Cost Reports/End of Stage Cost Plans	**Project Cost Reports/End of Stage Cost Plans** completed and clear on what costs are included and who has contributed to them.	
Design Reports- prepare (monthly) design progress report for incorporation into Project Report	**Design Reports** prepared (monthly to an agreed format), the design progress report for incorporation into Project Report.	
Approval **Design Reports** and authorise project to move to next Stage.	**Design reports approved** and necessary authorisation to move to next stage given by those nominated (lead designer?) and appointed by the client the responsibility for design process and approval.	

STAGE DETAILS	STAGE BASED VALIDATION	CHECK YES/NO
Manage formal Change Control procedure	**Managed formal Change Control procedure**- as set out in the project quality plan which ensures that changes to controlled aspects of the project are referred for review to the right person at the right time and so that changes are properly documented and reflected in all project information.	
Attend meetings as detailed on Meeting Schedule	**Attended meetings as detailed on Meeting Schedule** ensuring the resource implications are understood.	
Building in Use/ Plan for Use	**Are you creating a usable building with clearly defined requirements and targets (and embedded into all stages of the project) that are promoted by the Plan for Use Champion/ Whole life consultant?**	
Contribute to design process & approve designs with respect to operational requirements	Contributed to **design process & approved designs** with respect to operational requirements (both in-use and after-use).	
Risk Management	**The challenges and opportunities have been weighed up by the whole project team and collaborative solution agreed.**	
Prepare & Maintain Project Risk Register, review and update at monthly intervals- including Optimism Bias assessment	**Project Risk Register** prepared/ reviewed etc and includes all significant risks, financial impacts of the risks are understood, the importance or risks, risk exposure is identified and a process for reduction, cost effective risk control measures are implemented and control measures are reviewed and managed to close out risks- for example.	
Attend Risk Workshops & reviews, contribute to Project Risk Register	Attended (by those in the project team allocated and run to an agreed process) **Risk Workshops & reviews**, contributed to Project Risk Register.	
Provide quantitative Risk Register information	**Quantitative Risk Register** Information provided to objective and measurable data formats	
Design		
	Conservation Undertake specialist Site Surveys and appraisal of conservation area and research historic Site Information and assess the building's listed or scheduled status. Identify specialist conservation Project Stakeholder interest, undertake consultation and respond to Feedback in the Project Brief. Use Feasibility Studies to test the Client Requirements in relation to conservation	

STAGE DETAILS	STAGE BASED VALIDATION	CHECK YES/NO
	and discuss options with the local authority, Historic England and amenity societies. Assess the impact of the project on significance and draft a statement of significance to inform the Quality Aspirations, Project Brief, Procurement Strategy and Project Programme. Identify the conservation knowledge, skills and experience required in the design team (e.g. conservation architect), **Fire Safety** Identify Project Stakeholders including building users, residents, building managers and facilities managers and seek Feedback on access requirements, occupant behaviour, and building use and maintenance requirements to inform the development of the Project Brief (as well as technical requirements to qualify for insurance and warranties). Develop overarching fire safety requirements to inform the Project Brief, including initial fire safety measures such as access and facilities for the fire service, and the number and location of cores. Source Site Information relating to fire safety including fire strategies for existing buildings (e.g. existing compartmentation arrangements). Use Feasibility Studies to confirm that the Project Brief can be accommodated on the site in accordance with the overarching fire safety requirements. Identify whether specialist fire safety expertise is required in the design team, include it within the Responsibility Matrix and appoint consultants. **Inclusive design** Identify Inclusive design needs from Project Stakeholders, consultation groups, site audits, design standards and obligations from legislation and incorporate these into the Project Brief. Source Site Information including Site Surveys relevant to inclusive design (e.g. topography, historic building). Use Feasibility Studies to verify that the inclusive design needs can be accommodated on the site within the Project Budget. Identify whether specialist inclusive design expertise is required in the design team, include it within the Responsibility Matrix and appoint consultants **Sustainability** Use Feedback from Post Occupancy Evaluation, precedent review data, Site Surveys, and past experience of the client's Facilities Management team (if applicable) to state clear, deliverable and ambitious Sustainability Outcomes in the Project Brief. Use Feasibility Studies to verify that the Sustainability Outcomes can be achieved on the site within the Project	

STAGE DETAILS	STAGE BASED VALIDATION	CHECK YES/NO
	Budget. Verify local authority sustainability requirements (e.g. enhanced regulatory requirements or assessment methods to be used). Define certification requirements, including timetable for assessor appointments and early-stage client actions. Identify sustainability expertise required, include it within the Responsibility Matrix and appoint consultants.	
Prepare Design Responsibility Matrix	**Design Responsibility Matrix** prepared- where design responsibilities are clearly defined- stages 1-7 and address design co-ordination fully across the team. The design responsibilities been clearly defined and properly understood (strategic at level 1 and fine-tuned at end of Stage 2) before tender documentation is prepared or appointments made. Does it form part of the EIR (If BIM is adopted).	
Prepare design team quality plan	**Design Team Quality Management Plan** prepared identifying how designs will be reviewed, the risks to their compliance and who will be responsible or should be included.	
Ongoing validation to ensure achievement of project outcome and objectives regularly check and demonstrate alignment of emerging design with Project Outcome and Objectives	**Ongoing Validation Process** agreed to ensure achievement of project outcomes and objectives: regularly check and demonstrate alignment of emerging design with Project Outcomes & Objectives	
Participate in design reviews and technical workshops as required	**Design Reviews and Technical Workshops** have taken place as required.	
Develop stage design proposals (appropriate to role/ discipline)	**Stage Design Proposals** developed as appropriate to role/discipline and co-ordinated across design including any requirements for **CDP.**	
Stakeholder, client engagement	**Client Stakeholder Engagement Strategy** established and completed (which may have used the Briefing and Evaluation workshop sessions to collate details).	
Coordination of design	**Design Co-ordinated** to ensure there is a buildable and compliant product.	

STAGE DETAILS	STAGE BASED VALIDATION	CHECK YES/NO
Coordinate building services designs	**Building Services Designs** co-ordinated with the core design and will deliver systems that make the building comfortable, functional, efficient and safe.	
Space Planning (including adjacencies, flow, etc)	**Space Planning** completed that include detailed design studies and cost evaluations to ensure the planning/ building regulations are aligned with engineering and MEP.	
Develop access and maintenance strategies	**Access & Maintenance Strategies** developed that detail design studies and cost evaluations to ensure that planning/ building regulations are aligned with engineering and MEP.	
Prepare room Data Sheets	**Room Data Sheets** completed and taken into account the client requirements/ satisfy users, address all of the finishes, fixtures and fittings and how they will be built/ installed.	
Calculate gross and net internal floor areas	**Gross and net internal floor areas** calculated.	
Develop Fire Strategy & contribute to design solutions	**Fire Strategy** developed & contributed to design solutions.	
Develop Acoustic Strategy and contribute top design solutions	**Acoustic Strategy** developed & contributed to design solutions.	
Develop design solutions/ concepts to achieve sustainability/ net zero carbon requirements	**Design solutions/concepts to achieve sustainability/net zero carbon requirements** developed with reference to the sustainability strategy and objectives.	
Develop the building services proposals that meet the client brief, in accordance with the contents of BSRIA BG6/2018 'A Design Framework for Building Services	The **Building Services** proposals that meet the client brief, in accordance with the contents of BSRIA BG6/2018 'A Design Framework for Building Services' developed.	
Develop and confirm ICT strategy	**ICT Strategy** confirmed with input from FM advisors.	
Liaise with utility providers and develop site utilities requirements and strategies. Obtain quotations on clients behalf.	Utility providers have input to and developed **site utilities requirements and strategies** and are included in the budget and cost plan.	
Information Management	**Have you defined the Information Management requirements for each stage?**	

STAGE DETAILS	STAGE BASED VALIDATION	CHECK YES/NO
Coordinate & Federate BIM model	**Coordinated & Federated BIM model** or an alternative co-ordination model in place.	
Provide, maintain and manage Common Data Environment	**Common Data Environment** established in line with the agreed strategy and allows all those involved in the design and delivery process to access.	
Validate BIM model at each design stage	**BIM Model** has been validated by the BIM co-ordinator with sufficient information to validate the model at each design stage.	
Statutory Consents	**Statutory consents are not the basis for setting standards- ensure the building performance/whole life performance and sustainability principles/ goals been defined in the client requirements?**	
	Planning Undertake a Site Appraisal (urban design analysis or character appraisal as appropriate). Source pre-design Planning Advice to identify local planning policy related Project Risks to be considered in Feasibility Studies. Use Feasibility Studies to test the Project Brief against the planning constraints of the site and to verify that Quality Aspirations can be achieved. Confirm the requirement for, and scope of, an Environmental Impact Assessment, listed building consent, required consent formats (outline or full), and appropriateness of a planning performance agreement. Develop a planning brief incorporating planning policy principles, the planning strategy, and Project Stakeholder consultation methodology, to inform the Project Brief. Identify planning expertise required (e.g. planning consultant, landscape architect, ecologist, archaeologist, transport consultant), include it within the Responsibility Matrix and appoint consultants.	
Pre- Application Consultation	**Pre- Application Consultation** completed, with feedback mechanism into the design process.	
Prepare planning submission	**Planning Submissions** Prepared (with appropriate planning advice)	
Submit Planning Submission and liaise with Planners	**Planning Submission** submitted and followed up with Planners.	
Flood Risk Assessment/ Adaptation approach?	**Flood Risk Assessment/ Adaptation** approach developed.	

STAGE DETAILS	STAGE BASED VALIDATION	CHECK YES/NO
Prepare Site Drainage & SUDS design	**Site Drainage & SUDS** design prepared considering on site drainage options, reduced the likelihood of pollutants reaching watercourses, maximised the habitat/ local amenity value over conventional drainage options.	
Health & Safety	**The client has established a health and safety conscious approach to the delivery of the project from the outset- with clear health and safety objectives.**	
	Health and safety Research and communicate Health and Safety Site Information (e.g. asbestos) and coordinate it with Feasibility Studies. Initiate the collation, review and distribution of Pre-Construction Information, and establish design risk management processes. Define health and safety aspirations and incorporate these objectives within the Project Brief. Agree resource requirements, including time, fees and competence for CDM duty holders, and appoint the designers and the principal designer. Identify whether specialist health and safety advice is required in the design team, include it within the Responsibility Matrix and appoint consultants.	
Contribute to Health & Safety Strategy as required and to delivering the project in a safe manner. Provide all necessary information to the Principal Designer and comply with the CDM Regulations 2015.	Complied with the **Health and Safety Strategy** with information from the Principal Designer including resource requirements, responsibilities and specialist advice requirements.	
Building Performance	**A (Net Zero Public Building) set of Standards have been applied and these tested against the whole life appraisal to define clear principles and a process that is included in the client requirements?**	
Regulation Compliance Analysis	**Regulation Compliance Analysis** completed with clear principles and processes agreed and in place.	
Thermal Simulation	**Thermal Simulation** completed, providing an understanding of temperature performance.	

STAGE DETAILS	STAGE BASED VALIDATION	CHECK YES/NO
Building energy analysis	**Building energy analysis** completed to provide sufficient understanding of where energy is needed, where natural resources can be harnessed to assist with supply and where energy resources can be enhanced rather than drained.	
Undertake whole life carbon assessment	**Whole life carbon assessment** completed that demonstrates where core objectives have been met and energy modelling used to assess the impact of design decisions.	
Complete Whole Life Appraisal Tool	**Whole Life Appraisal Tool** completed and demonstrated whether performance and environmental assessment is aligned with commercial costs and the models tested to inform the design.	
Sustainability Analysis	**Sustainability Analysis** completed and outcomes informed the design.	
Daylight strategy and analysis	**Daylight strategy and analysis** completed to ensure the orientation of the building has been assessed to illustrate the control of natural lights to reduce reliance on electric lighting.	
Solar Gain and shading strategy and analysis	**Solar Gain and shading strategy and analysis** completed and ensures the design has balanced solar gains, shade dynamics and seasonal effects.	
Permeability and air tightness strategy and analysis	**Permeability and air tightness strategy** and analysis completed defining targets and measures.	
Acoustic strategy and analysis	**Acoustic strategy and analysis** completed and tested with the design.	
Passivhaus reviews at each design stage	**Passivhaus reviews** (at each design stage) completed.	
Surveys and Investigations		
N/A		
Cost		
	Prepare order of cost estimates to test the feasibility of achieving the emerging Project Brief including the Quality Aspirations and Project Strategies when carrying out Feasibility Studies.	

STAGE DETAILS	STAGE BASED VALIDATION	CHECK YES/NO
	Breakdown the cost of elements or categories to highlight any areas which may cause significant cost-related Project Risks. (e.g. likely foundation type) and consider the risk profile of potential market changes and inflation impact. Agree the Project Budget. Identify the cost consultant expertise required in the design team, include it within the Responsibility Matrix and appoint consultants.	
Prepare and update detailed Elemental Cost Plan	**Elemental Cost Plan** prepared and updated. Where the costs of elements are broken down from the overall construction cost and benchmarked by the cost consultant.	
Prepare and update Cash Flow	**Cashflow** has been prepared and updated. Outlined when costs will be incurred and how much they will be during the life of the project.	
Advise on costs of different design options	**Cost of different design options** considered and benchmarked against the employers' objectives. The cost options are incorporated into the overarching cost report.	
Value Management/ Engineering studies	**Value Management/ Engineering studies (if relevant) completed** and embedded into the project process.	
Manage consultant fee expenditure	**Consultant fee expenditure** tracked and managed in accordance with contract terms on fee changes.	
Valuations/Assessments	**Valuations and/or assessments** completed.	
Monthly Cost Report including statement of final cost	**Monthly Cost Report including statement of final cost** issued and includes costs movements, assumptions, risks and opportunities.	
Procurement & Award		
N/A		
Quality	**Is a quality approach embedded into the client requirements, supported by a quality assurance approach?**	

STAGE DETAILS	STAGE BASED VALIDATION	CHECK YES/NO
Develop, maintain and implement Client Construction Quality Plan	**Client Construction Quality Plan** defines the questions and actions.	
Retain 'ownership' of design quality throughout the project stages, maintain the 'Golden Thread'.	**Quality Culture** (CQIC) embedded in the Client Values and Culture and 'golden thread' fed into client requirements.	
Environmental Impact Assessment	**Has the client defined sustainability objectives or aligned with the principles of the National Planning Framework?**	
Support the achievement of the client's sustainability objectives and the Scottish Government's commitment for Scotland to become a net-zero society	**Sustainability Objectives** established and embedded into the project's Smart Objectives and brief as well as how they are measured.	
Environmental Screening and obtaining ELC Screening Opinion	**Environmental Screening** completed & obtained **ELC Screening Opinion**.	
Environmental Scoping	**Environmental Scoping** completed involving all relevant parties.	
Environmental Impact Assessment/ HRA (if required)	**Environmental Impact Assessment/ HRA** (if required) completed involving all relevant parties.	
Commissioning Testing & Handover	**Has the commissioning strategy been established at the start of the project and the information requirements defined in the SIMP?**	
Develop Project Commissioning Strategy	**Project Commissioning Strategy** established and embedded in the client requirements.	

Ends