

## Advice Note

# M+E Certification Roadmap

The ACEI M+E Sub-Committee has developed a guide for M+E consulting engineers in establishing the appropriate certification requirements for parties involved in M+E aspects of projects.

This 'M+E Certification Roadmap' was developed after extensive engagement with the M+E contractor representative bodies over the past year. The guide sets out, in so far as possible, the certificates relevant to each party across the main systems. The roadmap is a guide document only and is not in any way exhaustive – responsibilities for the Consulting Engineer will ultimately depend on obligations arising from the individual contract.

M+E members can use this roadmap as a guide when engaging with their clients in setting out the scope of work with a view to having this included in tender documents. It can also provide a useful guide in initial discussions with M+E contractors appointed to your project.

This document highlights the services that the Sub subcontractors have to design and the CSS certificates they have to provide.

### How and when MEP members should use the Roadmap:

- This non exhaustive roadmap should be used on each and every M+E project
- The roadmap should be used as a tool at the outset with clients as part of the process of agreeing the fee proposal and as such becomes part of the contract with the client for MEP CONSULTANTS
- This document is a tool to assist MEP members in clearly setting out the areas of MEP that the Consultant will design and the E certificates they will provide.

- Following on from the design process the roadmap should be further populated to demonstrate clearly what design responsibilities and what purple CSS certificates the contractor has to provide during the contract period.
- This completed and agreed roadmap should form part of the tender documents issued to all contractors for pricing so there is no ambiguity in the tender process.
- Verification can also be sought from the contractor prior to signing the contract that all elements of the contractor's design are included and that they will provide the relevant purple certs.
- Upon completion of the contract the suite of certificates required from the Sub Contractor and the Sub/Sub contractor can be obtained.
- The CS/CSS Certs including their associated Annex page needs to be clearly identified, which captures the design responsibility of the Contractor/Specialist.

**NOTE:** This document is provided for general information and guidance purposes only and does not constitute legal or professional advice. While every effort has been made to ensure the accuracy of the information contained herein, it should not be relied upon as a substitute for specific legal advice relating to individual circumstances. ACEI accepts no responsibility for any loss or damage that may arise from reliance on the content of this publication. For tailored advice, please contact a qualified legal professional.

# APPENDIX 1 – Scope of Services

The Consulting Engineer may be responsible for a wide range of systems depending on the nature of the project, and the scope of work defined for the Consulting Engineer.

The following sections set out the range of systems which the Building Services Consultant could potentially be responsible for designing. Make reference to Engineers project specific fee proposal for an agreed list of services.

**X** deliniates the design service and certificate required

Certificate Type E	Typical Building Services Systems ACTIVITY	Building Services Consultant		Building Services / Specialist Contractor		Certificate	Certificate	Certificate	Certificate	Certificate	CIF01 Certificate			CIF02 Certificate			
		Design 1	Performance Spec 2	Construction stage	Full Design	Type	Type	Type	Type	Type	Type	Type	Type	Type	Type	Type	
				Design Provide (3)	Provide 4	Ed	Ec	Ei	Sd	Sc	Si	Cs	Cs Scd 1	Cs Scd 2	Css	Css Scd 1	Css Scd 2
	Brackets and Supports & Fixings and Clamps (horizontal & vertical) incl fire rating where applicable		X		X						X	X	X	X	X	X	
	System thermal and building expansion/contraction/movement allowances		X		X						X	X	X	X	X	X	
	Builders work drawings for construction in connection of the building services installation works		X		X						X	X	X	X	X	X	
	Coordinated Working/ Construction stage drawings including coordination and interfaces with other plant & equipment / systems, trades and project team disciplines for provision of coordinated drawings for purpose of fabrication and installation		X		X						X	X	X	X	X	X	
	Design associated with temporary works not forming part of the final installation				X						X	X	X	X	X	X	
	Fire protection/stopping to all fire-rated sections of the Works		X		X						X	X	X	X	X	X	
	Preparation of installation and record drawings for all of the Building Services including as-built model & asset information as required in EIR/BEP		X		X						X	X	X	X	X	X	
	Site Services Layouts	X		X													
	Rainwater		Excluded		Main Contractor Item						Main Contractor Item						
	<b>Mechanical Systems</b>																
	General statement on mech																
	Validate final water and air system pressure resistances prior to order of plant and equipment (unless agreed otherwise)	X		X													
	Smoke ventilation systems including Mechanical Smoke Shaft / Atrium Ventilation Systems, AOVs		X		X						X	X	X	X	X	X	
	Controls and Building MS/BEMS/façade MS including control/ELV cable selection from mechanical control centres (MCC's) to mechanical plant items		X		X						X	X	X	X	X	X	
	Selection of acoustic attenuation		X		X						X	X	X	X	X	X	
	Selection of vibration controllers/isolators		X		X						X	X	X	X	X	X	
	Water Filtration & Treatment Systems		X		X						X	X	X	X	X	X	
	Exhaust Gas Flues		X		X						X	X	X	X	X	X	
	DX/VRF air conditioning pipework systems		X		X						X	X	X	X	X	X	
	Process Water Services		X		X						X	X	X	X	X	X	
	Medical gas and vacuum services		X		X						X	X	X	X	X	X	
	Exhaust Gas Treatment		X		X						X	X	X	X	X	X	
	Pneumatic Tube Systems		X		X						X	X	X	X	X	X	
	<b>Electrical Systems</b>																
	General statement on elec																
	Main Equipotential and Supplementary Equipotential Bonding System		X		X						X	X	X	X	X	X	
	Layout and sizing of containment to terminal devices.		X		X						X	X	X	X	X	X	
	Design of prefabricated wiring systems		X		X						X	X	X	X	X	X	
	Final circuit configuration of the general services, small power and lighting circuits		X		X						X	X	X	X	X	X	
	Earthing system		X		X						X	X	X	X	X	X	
	Lightning protection systems including risk assessment		X		X						X	X	X	X	X	X	
	Fire alarm software and equipment selection to achieve the performance criteria specified		X		X						X	X	X	X	X	X	
	Lighting control systems		X		X						X	X	X	X	X	X	
	Intruder Alarm		X		X						X	X	X	X	X	X	
	Nurse Call Systems		X		X						X	X	X	X	X	X	
	Distributed Antenna System		X		X						X	X	X	X	X	X	
	Induction Loops		X		X						X	X	X	X	X	X	
	Vibration Control		X		X						X	X	X	X	X	X	
	Audio-Visual & Sound Systems incl. structured cabling (HDMI, speaker cable etc)		X		X						X	X	X	X	X	X	
	Radio & TV transmission Services		X		X						X	X	X	X	X	X	
	Clock Installations		X		X						X	X	X	X	X	X	
	<b>Active Fire Protection Systems</b>																
	Design of sprinkler systems to BS9251 / EN 12845		X		X						X	X	X	X	X	X	
	Fire Hydrant Systems (internal)		X		X						X	X	X	X	X	X	
	Fire Pumps and Underground Fire Main		X		X						X	X	X	X	X	X	
	<b>Vertical Transportation Systems</b>																
	Design of lifts, escalators and travelators		X		X						X	X	X	X	X	X	

## Notes:

- Above is a non-exhaustive list and can be supplemented on a project by project basis.
- Provision of above CS/CSS Certs will be subject to Project Procurement, i.e. if Specialist is operating as either 'Primary Sub-Contractor' or 'Subcontractor/Specialist to Primary Subcontractor'.