

## PFR Code of Practice competency framework for key practitioners

This document sets out the competencies required for each standard/stage of the Code of Practice for PFR for surveyors and building contractors/installers wishing to join the CIWEM Specialist Register for PFR Professionals

The main outcome of the application process for the PFR specialist register is to independently certify that PFR practitioners have the pre-requisite skills, knowledge and experience (i.e. competence) to be regarded as an 'appropriate person' and competent to undertake and supervise the requirements of the relevant Standards as outlined in the Code of Practice for PFR. Registration is awarded under two roles:

1. Surveyor, and quality assurance (i.e Post Installation Audit)
2. Building contractor/installer

Applications are assessed against the PFR CoP competence framework to the appropriate competency level (see table 1) as determined by the role. Table 2 presents the required competencies for the specific roles and standards of the Code of Practice.

*Table 1 Competency levels*

1. Aware	At this level individuals have limited knowledge and an introductory capability in subject area of their professional field. They require ongoing supervision, direction and support in their development.
2. Capable	At this level individuals have increasing capabilities and are able to apply standard methodologies to their work autonomously. They drive their own development, but will benefit from continued guidance.
3. Independent	At this level individuals demonstrate in-depth knowledge of their subject area and wider sector and manage complex projects and solutions. They support the development of others, can assume leadership roles within groups, and drive the direction of their area of work.
4. Expert	At this level individuals have in-depth mastery of complex tasks and supervise the completion of exceptional issues. They innovate and offer market differentiation. Driving the subject area, offering industry leading knowledge and understanding of the latest thinking. Providing leadership for a collective and collaborative response. Actively facilitate the personal and professional development of those with whom they have a level of influence.

### Demonstrating competencies in PFR

The completion of a technical report is part of the process to apply for the Specialist Register of Property Flood Resilience Professionals. Full details of the other requirements can be [found here](#).

The technical report is used to demonstrate applicants knowledge and competencies related to the specific role and against the Code of Practice standards. The technical report must show how applicant's knowledge meets the competences in Table 2 for the required role. This should demonstrate;

- The applicant's understanding of the role they're applying for and the relevant competencies
- practical application of knowledge of the appropriate standards
- and details of how the applicant has resolved operational, technical or engagement challenges along with any other relevant reflections on the lessons learnt.

Table 2 Competency framework

		General competences							Standard 1 - Hazard Assessment	Standard 2 - Property survey	Standard 3 - Options development and design	Standard 4 - Construction	Standard 5 - Commissioning and handover	Standard 6 - Operation and maintenance								
Competence area		G1. Safe and effective working practices			G2. Communication and professionalism			G3. Understanding flooding and flood resilience	S1. Understanding flood risks and hazards	S2. Assessing occupants & the property	S3. Developing PFR options, specifications and designs	S4. Constructing and installing PFR	S5. Commissioning and handover	S6. Operating and maintaining PFR								
Competence		Resource management	Health, Safety and wellbeing (HS&W)	Quality Assurance (QA)	Communication	Professional ethics and conduct	Collaboration, engagement and partnerships	Understanding flood risk (Source – Pathway - Receptor)	Understanding Property Flood Resilience	Understanding flood risk	Understanding hazards	Undertaking a property assessment	Undertaking an occupant assessment	Developing PFR options	Developing a specification and design for PFR	Preparing for construction and installation	Constructing and installing PFR	Testing and quality assurance	Handing over PFR	Operating and deploying PFR	Maintaining PFR	
<b>PFR role</b>																						
<b>1. Surveyor &amp; quality assurance</b>		I	I	I	I	I	I	I	I	C	C	I	I	I	I	C	C	I	I	A	A	
<b>2. Building contractor / installer</b>		I	I	I	I	I	I	I	I	A	A	C	C	I	I	I	I	I	I	I	I	

Key	
I	Independent level of competence
C	Capable level of competence
A	Aware level of competence

## General competencies

All roles require an **independent** level of general competencies to be achieved. Typical focus areas for your answers to explore and possible requirements to achieve an appropriate level of competence are provided below

## Safe and effective working practices

### Resource management

1. Plan for and manage resources effectively across PFR projects.
2. Lead and manage resources, budgets and proportionate delivery of complex /multiple projects or teams.
3. Monitor and evaluate operational efficiency of resources and costs, delivering continuous improvement.
4. Effectively manage resources and the appropriate reuse of materials.

### Health, Safety and Wellbeing (HS&W)

1. Assess the safety implications of your role and responsibilities, and the relevant Health and Safety (H&S) legislation, this may include, but is not limited to CDM, ISO45001 and organisational policies.
2. Manage, apply and improve safe systems of working and practices for those involved in projects.
3. Lead and evaluate compliance with H&S requirements in the planning and implementation of your work.
4. Promote and support the wellbeing of your colleagues, identifying and development good practice.

### Quality Assurance (QA)

1. Demonstrate how you remain knowledgeable of relevant standards and certification and consistently achieve full compliance.
2. Manage QA procedures relevant to your role and examine how you comply with their requirements with a clear audit trail including external standards such as ISO9001.
3. Ensure a consistency of approach to required standards.
4. Exercise integrity and judgement in managing tasks across the workplace.
5. Promote the principles of quality assurance to colleagues.
6. Effectively record and communicate processes for PFR installation, test results and inspections managing any rectification of defects/snagging.

## Communication and professionalism

### Communication

1. Demonstrate effective communication, at all levels, adapting communication styles and language to meet the needs of the audience.

2. Clearly present persuasive proposals and presentations.
3. Lead meetings, discussions and engagement with a range of stakeholders.
4. Lead the development of practices to support equity, diversity and inclusion within your role and work.

### **Professional ethics and conduct**

1. Evaluate policies and codes that apply to you and your work.
2. Build relationships with stakeholders to ensure effective communication, collaboration and decision making.
3. Promote compliance with codes of conduct and professional working.
4. Consistently identify, appraise and resolve the ethical issues that may arise within your role.

### **Collaboration, engagement and partnerships**

1. Manage relationship with a diverse range of stakeholders involved in PFR projects and related work.
2. Promote and build partnership working within projects or your organisation.
3. Lead opportunities for collaboration and partnership working.
4. Actively input into a framework that enables PFR professionals to collaborate, recording and communicating the process and progress (including variations/snagging) on a projects.

### **Understanding flooding and flood resilience**

#### **Understanding flood risk**

1. Explain how the source-pathway-receptor concept can be influenced
2. Demonstrate approaches to change flood risk.
3. Demonstrate how their role can influence flood risk management and interact with the flood risk management hierarchy.

#### **Understanding PFR**

1. Explain how resilience can be provided for certain points of water entry.
2. Demonstrate an appreciation of the different resistance and recovery measures available.
3. Ensure compliance of relevant Standards and Certifications for PFR.
4. Demonstrate an understanding and compliance with relevant standards and guidance on PFR.

## Competencies for Stage 1 – Hazard assessment for surveyor and quality assurance role

### Understanding flood risks and hazards

Typical focus areas for your answers to explore and possible requirements for the surveyor roles to demonstrate a **capable** level of competency.

#### Understanding flood risks

1. Contribute to the assessment of flood risks using the source-pathway-receptor framework.
2. Contribute to a flood risk assessment that considers probability and impact, hazard (depth, velocity, duration), exposure and vulnerability and different flood sources.
3. Describe how their role can influence flood risk management and potentially interact with the flood risk management hierarchy.

#### Understanding hazards

1. Demonstrate familiarity with using different sources of flood hazard information and their particular value..
2. Contribute to the calculation of flood probability, frequency and impact and demonstrate how they can be calculated.
3. Contribute to an assessment of how the location, surrounding and characteristics of buildings can influence flood resilience.
4. Contribute to an assessment of how the probability and impact of flooding influences the resilience of buildings and the influences of development changes and/or climate change and other potential uncertainties.
5. Contribute to an assessment of proportionality for a hazard assessment in terms of scale and detail.
6. Contribute to hazard assessments that inform the selection of PFR measures.

## Competencies for Stage 2 – Property survey for surveyor and quality assurance role

### PFR survey – assessing occupants and the property

Typical focus areas for your answers to explore and possible requirements for the surveyor roles to demonstrate an **independent** level of competency.

#### Undertaking an occupant assessment

1. Undertake engagement with the different clients/end users to understand their requirements.
2. Develop a scope the survey.

3. Undertake the assessment of occupants and end users and provide a report to influence PFR delivery.

### **Undertaking an property assessment**

1. Demonstrate a review of the hazard assessments and prepare for a proportionate PFR survey.
2. Undertake an assessment and characterisation of a property.
3. Undertake an assessment and mapping floodwater entry routes, or routes of ingress.
4. Undertake an assessment of the existing flood resilience of a property.
5. Undertake an assessment of moisture and demonstrate a thorough understanding of a decontamination and drying process.
6. Independently deliver a proportionate PFR survey.

## **Competencies for Stage 3 – Options development & design for surveyor and quality assurance role**

### **Developing PFR options, specifications and design**

Typical focus areas for your answers to explore and possible requirements for the surveyor and building contractor/installer roles to demonstrate an **independent** level of competency.

#### **Developing PFR options**

1. Evaluate the influence of the outputs from Stages 1 and 2 and obtain further information on how flood hazards impact the building.
2. Demonstrate the influence of client/end user requirements, ownership and building type, construction, walls, floors, finishes, services, fixtures and fittings on options for PFR.
3. Use skills to develop resilience options that are informed by Stages 1 and 2 and costs/proportionality.
4. Develop report and communicate how individual PFR options or measures work, explaining the advantages and disadvantages and the factors that influence the inclusion.
5. Actively engage and commission input from other specialists (structural engineers) in developing PFR options.
6. Develop and recommend appropriate PFR options that present proposed level of resilience and costs.

#### **Developing a specification and design for PFR**

1. Understand the different types of resilience measures, critically evaluate their suitability, and demonstrate a robust understanding of standards and certification.
2. Critically evaluate the key factors influencing client/end user decision and the impact on resilience.

3. Develop specifications of appropriate PFR measures and construction methods (schedule of work).
4. Develop appropriate PFR designs that clearly assigns responsibilities for installation (including drying/decontamination, structural requirements) and operation.
5. Demonstrate an ability to confidently explain the PFR specification and design to the client/end user and the other professionals involved in PFR delivery.

## **Competencies for Stage 4 – Construction for surveyor and quality assurance role**

### **Constructing and installing PFR**

Typical focus areas for your answers to explore and possible requirements for the surveyor roles to demonstrate an **capable** level of competency.

#### **Preparing for construction and installation**

1. Understand the influence of outputs from Stages 1 - 3 (i.e. the hazard assessment, survey and PFR specification and design).
2. Explain the value in establishing effective engagement and relationships with other stakeholders and PFR professionals involved (e.g. client/end user, surveyor, specifier).
3. Contribute to agreeing the approach, responsibilities, design and costs with key stakeholders (e.g. client/end user, designer) .
4. Contribute to discussion and formalise the agreement with the client/end user by developing a contract and detailed schedule of works.
5. Explain how relevant good practice in terms of construction practices and supplier/manufacture instructions influences PFR delivery and agreeing liabilities, warranties etc

#### **Constructing and installing PFR**

1. Contribute to the assessment of buildings to ensure they are sufficiently decontaminated and dry.
2. Contribute to the evaluation of the building condition (e.g. moisture content) to ensure effective repair and reinstatement.
3. Contribute to making good the building fabric (services etc) to enable effective delivery of PFR and compatibility of PFR measures.
4. Contribute to the delivery of measures to make buildings resistant to floodwater and/or more recoverable following flooding.

## Competencies for Stage 5 – Commissioning & handover for surveyor and quality assurance role

### Commissioning and handover

Typical focus areas for your answers to explore and possible requirements for the surveyor and building contractor/installer roles to demonstrate an **independent** level of competency.

### Testing and quality assurance

1. Contribute to the process for assessing the quality of PFR construction/installation against the specification and design (produced in stage 3).
2. Contribute to an assessment of knowledge and facilities to enable the client/end user to store, deploy, operate and maintain PFR measures.
3. Contribute to the discussion and delivery of appropriate in-situ testing approaches.
4. With supervision contribute to the management or delivery of an independent Post Installation Audit with correct snagging lists, evidence and reporting.
5. Contribute to the recording and delivery of remedial works to rectify identified defects and snags from the in-situ testing and Post Installation Audit as required.

### Handing over PFR

1. Demonstrate a clear understanding and contribute to the handover of PFR measures and the development of a handover pack.
2. Contribute to the assessment of whether the client/end user understands how to store, operate and maintain PFR measures.
3. Contribute to the assessment of whether PFR works can be signed off and an assessment of revised flood risk and resilience.

## Competencies for Stage 6 – Operation and maintenance for surveyor and quality assurance role

### Operating and maintaining PFR

Typical focus areas for your answers to explore and possible requirements for the surveyor roles to demonstrate an **aware** level of competency.

### Operating and deploying PFR

1. Appreciate how the outputs from previous stages influence the roles, responsibilities and activities required for the operation and maintenance of PFR.
2. Explain the operation and operational requirements of various PFR measures (covering resistance and recovery approaches) including any specific requirements from the PFR maintenance plan and handover pack.
3. Have awareness on relevant flood preparation and describe how this could inform the client/end user on when and how to deploy PFR (as outlined in the handover pack).

## **Maintaining PFR**

1. Appreciate the service life of PFR measures.
2. Understand the key aspects of providing client/end users advice on storage, maintenance, cleaning and preparative checks for the deployment of PFR.
3. Understand the renewal, replacement and upgrading of PFR measures that are beyond their design life, or broken.
4. Appreciate the importance of recording and communicating inspections of PFR and site assessment.
5. Appreciate the process of post flood PFR checks and determine remedial actions.
6. Appreciate the process for supporting the client/end user in servicing and where necessary repairing PFR measures as part of usual storage and following flooding.

## Competencies for Stage 1 – Hazard assessment for building contractor/installer

### Understanding flood risks and hazards

Typical focus areas for your answers to explore and possible requirements for the building contractor/installer roles to demonstrate an **aware** level of competency.

#### Understanding flood risks

1. Demonstrate an understanding of the source-pathway-receptor framework and how it influences flood risk.
2. Understand the components of flood risk.
3. Recognise the importance of hazard (depth, velocity, duration) exposure and vulnerability and how they influence flood risk.
4. Understand the sources and causes of flooding.
5. Appreciate the key components of flood risk assessment.
6. Demonstrate knowledge of the flood risk management hierarchy and appropriate measures.

#### Understanding hazards

1. Appreciate the various sources of flood hazard information.
2. Appreciate the concepts of flood probability, frequency, impact, exposure and vulnerability that impact flood hazards.
3. Appreciate how the location, surrounding and characteristics of buildings can influence flood resilience.
4. Appreciate how the flood sources and associated hazard can influence the approach to resilience.
5. Understand the relative costs and time required to assess difference information and hazards and their influence on the scale and detail of the survey required.
6. Appreciate the key components of a flood and hazard assessment and how it underpins flood resilience and PFR.

## Competencies for Stage 2 – Property survey for building contractor/installer

### PFR survey – assessing occupants and the property

Typical focus areas for your answers to explore and possible requirements for the building contractor/installer roles to demonstrate an **capable** level of competency.

#### Undertaking an occupant assessment

1. Prepare and support the engagement of clients/end users.
2. Identify the key considerations for finalisation of the scope of the PFR survey.

3. Support the determination of client/end user needs and the influence the delivery of PFR.
4. Contribute to the completion of an assessment of the client/end user.

### **Undertaking a property assessment**

1. Contribute to review of a hazard assessments, and determining the scope of the survey in relation to SPR, risks, proportionality and ground conditions.
2. Understand and contribute to the assessment and characterisation of a property in terms of building type, construction, walls, floors, finishes, fixtures and fittings.
3. Contribute to the assessment and mapping of floodwater entry routes, or routes of ingress.
4. Contribute to the assessment of factors and measures that influence the existing level of flood resilience.
5. Contribute to the assessment of moisture and determining an approach to decontaminate and dry a property.
6. Contribute to developing a proportionate PFR survey.

## **Competencies for Stage 3 – Options development & design for building contractor/installer**

### **Developing PFR options, specifications and design**

Typical focus areas for your answers to explore and possible requirements for the surveyor and building contractor/installer roles to demonstrate an **independent** level of competency.

### **Developing PFR options**

1. Evaluate the influence of the outputs from Stages 1 and 2 and obtain further information on how flood hazards impact the building.
2. Demonstrate the influence of client/end user requirements, ownership and building type, construction, walls, floors, finishes, services, fixtures and fittings on options for PFR.
3. Use skills to develop resilience options that are informed by Stages 1 and 2 and costs/proportionality.
4. Develop report and communicate how individual PFR options or measures work, explaining the advantages and disadvantages and the factors that influence the inclusion.
5. Actively engage and commission input from other specialists (structural engineers) in developing PFR options.
6. Develop and recommend appropriate PFR options that present proposed level of resilience and costs.

## Developing a specification and design for PFR

1. Understand the different types of resilience measures, critically evaluate their suitability, and demonstrate a robust understanding of standards and certification.
2. Critically evaluate the key factors influencing client/end user decision and the impact on resilience.
3. Develop specifications of appropriate PFR measures and construction methods (schedule of work).
4. Develop appropriate PFR designs that clearly assigns responsibilities for installation (including drying/decontamination, structural requirements) and operation.
5. Demonstrate an ability to confidently explain the PFR specification and design to the client/end user and the other professionals involved in PFR delivery.

## Competencies for Stage 4 – Construction for building contractor/installer

### Constructing and installing PFR

Typical focus areas for your answers to explore and possible requirements for the building contractor/installer roles to demonstrate an **independent** level of competency.

### Preparing for construction and installation

1. Evaluate the influence of outputs from Stages 1 - 3 (i.e. the hazard assessment, survey and PFR specification and design).
2. Actively develop effective engagement and relationships with other stakeholders and PFR professionals involved (e.g. client/end user, surveyor, specifier).
3. Lead approaches to agree responsibilities, design and costs with key stakeholders (e.g. client/end user, designer) .
4. Lead discussions and formalising of agreements with the client/end user by developing a contract and detailed schedule of works.
5. Apply good practice in terms of construction practices and supplier/manufacture instructions to PFR delivery and identify the impact on liabilities, warranties etc

### Constructing and installing PFR

1. Undertake an assessment of buildings to ensure they are sufficiently decontaminated and dry.
2. Lead the evaluation of the building condition (e.g. moisture content) to ensure effective repair and reinstatement.
3. Lead and manage the making good of the building fabric (services etc) to enable effective delivery of PFR and compatibility of PFR measures.
4. Lead and manage the delivery of measures to make buildings resistant to floodwater and/or more recoverable following flooding.

5. Arrange and manage the inspection of PFR measures during construction and installation.

## **Competencies for Stage 5 – Commissioning & handover for building contractor/installer**

### **Commissioning and handover**

Typical focus areas for your answers to explore and possible requirements for the surveyor and building contractor/installer roles to demonstrate an **independent** level of competency.

#### **Testing and quality assurance**

1. Contribute to the process for assessing the quality of PFR construction/installation against the specification and design (produced in stage 3).
2. Contribute to an assessment of knowledge and facilities to enable the client/end user to store, deploy, operate and maintain PFR measures.
3. Contribute to the discussion and delivery of appropriate in-situ testing approaches.
4. With supervision contribute to the management or delivery of an independent Post Installation Audit with correct snagging lists, evidence and reporting.
5. Contribute to the recording and delivery of remedial works to rectify identified defects and snags from the in-situ testing and Post Installation Audit as required.

#### **Handing over PFR**

1. Demonstrate a clear understanding and contribute to the handover of PFR measures and the development of a handover pack.
2. Contribute to the assessment of whether the client/end user understands how to store, operate and maintain PFR measures.
3. Contribute to the assessment of whether PFR works can be signed off and an assessment of revised flood risk and resilience.

## **Competencies for Stage 6 – Operation and maintenance for building contractor/installer**

### **Operating and maintaining PFR**

Typical focus areas for your answers to explore and possible requirements for the building contractor/installer roles to demonstrate an **independent** level of competency.

#### **Operating and deploying PFR**

1. Using the outputs from previous stages produce a report that identifies the roles, responsibilities and activities required for the operation and maintenance of PFR.
2. Provide an explanation (verbally and written) of the operation and operational requirements of various PFR measures (covering resistance and recovery approaches)

including any specific requirements from the PFR maintenance plan and handover pack.

3. Provide an explanation (verbally and written) of appropriate flood preparation tasks and describe how this could inform the client/end user on when and how to deploy PFR (as outlined in the handover pack). Apply good practice in terms of construction practices and supplier/major manufacturer instructions to PFR delivery and identify the impact on liabilities, warranties etc

### **Maintaining PFR**

1. Discuss and record the service life of PFR measures.
2. Provide advice to the client/end user on storage, maintenance, cleaning and preparative checks for the deployment of PFR.
3. Advise on the renewal, replacement and upgrading of PFR measures that are beyond their design life, or broken.
4. Undertake, communicate and record inspections of PFR and site assessment.
5. Undertake, communicate and record post flood PFR checks and determining remedial actions.
6. Help provide support to the client/end user in servicing and where necessary repairing PFR measures as part of usual storage and following flooding.

## Stage 1 – Hazard assessment

### Understanding flood risks and hazards – building contractor/installer

Typical focus areas for your answers to explore and possible requirements for the building contractor/installer roles to demonstrate an **aware** level of competency.

#### Understanding flood risks

1. Demonstrate an understanding of the source-pathway-receptor framework and how it influences flood risk.
2. Understand the components of flood risk.
3. Recognise the importance of hazard (depth, velocity, duration) exposure and vulnerability and how they influence flood risk.
4. Understand the sources and causes of flooding.
5. Appreciate the key components of flood risk assessment.
6. Demonstrate knowledge of the flood risk management hierarchy and appropriate measures.

#### Understanding hazards

1. Appreciate the various sources of flood hazard information.
2. Appreciate the concepts of flood probability, frequency, impact, exposure and vulnerability that impact flood hazards.
3. Appreciate how the location, surrounding and characteristics of buildings can influence flood resilience.
4. Appreciate how the flood sources and associated hazard can influence the approach to resilience.
5. Understand the relative costs and time required to assess difference information and hazards and their influence on the scale and detail of the survey required.
6. Appreciate the key components of a flood and hazard assessment and how it underpins flood resilience and PFR.

## Stage 2 – Property survey

### PFR survey – assessing occupants and the property – building contractor/installer

Typical focus areas for your answers to explore and possible requirements for the building contractor/installer roles to demonstrate an **capable** level of competency.

#### Undertaking an occupant assessment

1. Prepare and support the engagement of clients/end users.
2. Identify the key considerations for finalisation of the scope of the PFR survey.

1. Support the determination of client/end user needs and the influence the delivery of PFR.
2. Contribute to the completion of an assessment of the client/end user.

### **Undertaking a property assessment**

1. Contribute to review of a hazard assessments, and determining the scope of the survey in relation to SPR, risks, proportionality and ground conditions.
2. Understand and contribute to the assessment and characterisation of a property in terms of building type, construction, walls, floors, finishes, fixtures and fittings.
3. Contribute to the assessment and mapping of floodwater entry routes, or routes of ingress.
4. Contribute to the assessment of factors and measures that influence the existing level of flood resilience.
5. Contribute to the assessment of moisture and determining an approach to decontaminate and dry a property.
6. Contribute to developing a proportionate PFR survey.

## **Stage 3 – Options development & design**

### **Developing PFR options, specifications and design – building contractor/installer**

Typical focus areas for your answers to explore and possible requirements for the surveyor and building contractor/installer roles to demonstrate an **independent** level of competency.

#### **Developing PFR options**

1. Evaluate the influence of the outputs from Stages 1 and 2 and obtain further information on how flood hazards impact the building.
2. Demonstrate the influence of client/end user requirements, ownership and building type, construction, walls, floors, finishes, services, fixtures and fittings on options for PFR.
3. Use skills to develop resilience options that are informed by Stages 1 and 2 and costs/proportionality.
4. Develop report and communicate how individual PFR options or measures work, explaining the advantages and disadvantages and the factors that influence the inclusion.
5. Actively engage and commission input from other specialists (structural engineers) in developing PFR options.
6. Develop and recommend appropriate PFR options that present proposed level of resilience and costs.

## Developing a specification and design for PFR

1. Understand the different types of resilience measures, critically evaluate their suitability, and demonstrate a robust understanding of standards and certification.
2. Critically evaluate the key factors influencing client/end user decision and the impact on resilience.
3. Develop specifications of appropriate PFR measures and construction methods (schedule of work).
4. Develop appropriate PFR designs that clearly assigns responsibilities for installation (including drying/decontamination, structural requirements) and operation.
5. Demonstrate an ability to confidently explain the PFR specification and design to the client/end user and the other professionals involved in PFR delivery.

## Stage 4 – Construction

### Constructing and installing PFR – building contractor/installer

Typical focus areas for your answers to explore and possible requirements for the building contractor/installer roles to demonstrate an **independent** level of competency.

#### Preparing for construction and installation

1. Evaluate the influence of outputs from Stages 1 - 3 (i.e. the hazard assessment, survey and PFR specification and design).
2. Actively develop effective engagement and relationships with other stakeholders and PFR professionals involved (e.g. client/end user, surveyor, specifier).
3. Lead approaches to agree responsibilities, design and costs with key stakeholders (e.g. client/end user, designer) .
4. Lead discussions and formalising of agreements with the client/end user by developing a contract and detailed schedule of works.
5. Apply good practice in terms of construction practices and supplier/manufacture instructions to PFR delivery and identify the impact on liabilities, warranties etc

#### Constructing and installing PFR

1. Undertake an assessment of buildings to ensure they are sufficiently decontaminated and dry.
2. Lead the evaluation of the building condition (e.g. moisture content) to ensure effective repair and reinstatement.
3. Lead and manage the making good of the building fabric (services etc) to enable effective delivery of PFR and compatibility of PFR measures.
4. Lead and manage the delivery of measures to make buildings resistant to floodwater and/or more recoverable following flooding.

5. Arrange and manage the inspection of PFR measures during construction and installation.

## Stage 5 – Commissioning & handover

### Commissioning and handover – building contractor/installer

Typical focus areas for your answers to explore and possible requirements for the surveyor and building contractor/installer roles to demonstrate an **independent** level of competency.

#### Testing and quality assurance

1. Contribute to the process for assessing the quality of PFR construction/installation against the specification and design (produced in stage 3).
2. Contribute to an assessment of knowledge and facilities to enable the client/end user to store, deploy, operate and maintain PFR measures.
3. Contribute to the discussion and delivery of appropriate in-situ testing approaches.
4. With supervision contribute to the management or delivery of an independent Post Installation Audit with correct snagging lists, evidence and reporting.
5. Contribute to the recording and delivery of remedial works to rectify identified defects and snags from the in-situ testing and Post Installation Audit as required.

#### Handing over PFR

1. Demonstrate a clear understanding and contribute to the handover of PFR measures and the development of a handover pack.
2. Contribute to the assessment of whether the client/end user understands how to store, operate and maintain PFR measures.
3. Contribute to the assessment of whether PFR works can be signed off and an assessment of revised flood risk and resilience.

## Stage 6 – Operation and maintenance

### Operating and maintaining PFR – building contractor/installer

Typical focus areas for your answers to explore and possible requirements for the building contractor/installer roles to demonstrate an **independent** level of competency.

#### Operating and deploying PFR

1. Using the outputs from previous stages produce a report that identifies the roles, responsibilities and activities required for the operation and maintenance of PFR.
2. Provide an explanation (verbally and written) of the operation and operational requirements of various PFR measures (covering resistance and recovery approaches) including any specific requirements from the PFR maintenance plan and handover pack.

1. Provide an explanation (verbally and written) of appropriate flood preparation tasks and describe how this could inform the client/end user on when and how to deploy PFR (as outlined in the handover pack). Apply good practice in terms of construction practices and supplier/manufacture instructions to PFR delivery and identify the impact on liabilities, warranties etc

### **Maintaining PFR**

1. Discuss and record the service life of PFR measures.
2. Provide advice to the client/end user on storage, maintenance, cleaning and preparative checks for the deployment of PFR.
3. Advise on the renewal, replacement and upgrading of PFR measures that are beyond their design life, or broken.
4. Undertake, communicate and record inspections of PFR and site assessment.
5. Undertake, communicate and record post flood PFR checks and determining remedial actions.
6. Help provide support to the client/end user in servicing and where necessary repairing PFR measures as part of usual storage and following flooding.

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