



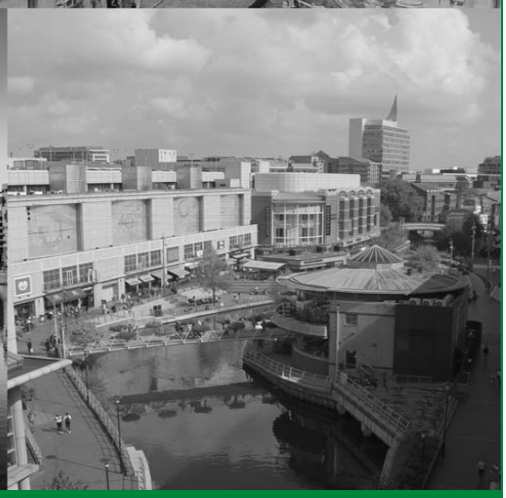

RIDGE

Internal Remedial Works at Days Lock House

Environment Agency

15 December 2021

PRICING DOCUMENT

Environment Agency

15/12/2021

Prepared for

Environment Agency
Thames Region
Kings Meadow House
Kings Meadow Road
Reading
RG1 8DG

Prepared by

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Originator Initials	HW
Checked Initials	DP
Version	5
Notes	

PRICING DOCUMENT

Internal Remedial Works at Days Lock House

RIDGE

CONTENTS

1. PRELIMINARIES

1.1 - Preliminaries

PRICING DOCUMENT

Internal Remedial Works at Days Lock House

1. PRELIMINARIES/ GENERAL CONDITIONS

Ref.	Description	£
1.0	**Project Background/ Information**	
.01	Remedial works following the underpinning works undertaken by others at Days Lock House.	
.02	Property Address: Days Lock, Little Wittenham, Abingdon, Oxford, OX14 4RB	
.03	Description of the Works: The Works shall comprise: Internal remedial works within the kitchen and bathroom.	
.04	Drawings and documents indicating the nature and general scope of the Works are as listed on the Contents page, including Appendices.	
.05	The Contractor is to give notice immediately of suspected asbestos - containing materials if discovered during the course of the Works and avoid disturbing such materials. Statutory risk assessments and details of the proposed methods for its safe removal are to be submitted.	
.06	The Client will be: Environment Agency Address: Kings Meadow House, Kings Meadow Road, Reading, Berkshire, RG1 8DG Contact: Kathryn Forster Telephone: 0208 4747644 Email: Kathryn.Forster@environment-agency.gov.uk	
.07	The Client Representative will be: Ridge and Partners LLP Address: Beaumont House, 59 High Street, Theale, Reading, Berkshire, RG7 5AL Contact: Harry Wichall Telephone: 07920 063 750 Email: harrywichall@ridge.co.uk	
.08	The Works will be instructed via Purchase Order from the Client.	
	To Collection £	

1. PRELIMINARIES/ GENERAL CONDITIONS

Ref.	Description	£
2.0	Requirements of the Contractor	
.01	On receipt of this Specification and Schedule of Works document please confirm that you have read and understood them and that you are able to return a bona fide quotation by the below deadline.	
.02	The Schedule of Works is to be read in strict accordance with the Materials and Workmanship, Preliminaries and Drawings. Where materials or workmanship are described as ''……or equal and approved'' this shall mean 'approved by the Contract Administrator'.	
.03	Should you wish to visit the Site or have any queries in relation to this document, please contact Harry Wichall of Ridge and Partners on 07920 063 750 in the first instance.	
.04	Quotations are to be returned to Kathryn Forster at the Environment Agency by hard copy or email by 12 noon on the date of the quotation return.	
.05	The Date of Possession will be agreed. Contractors are to prepare and submit a programme of works with their quotation in addition to stating the required lead in period from placement of order to the commencement of the works.	
.06	The Contractor shall not include any Provisional Sums within their Contractor's Proposals other than those listed within the Schedule of Works and General Collection.	
.07	At the request of the Contract Administrator, the Contractor shall, by return of post, provide further documentation that is required for the proper assessment of their quotation.	
.08	All quantities prepared by the Contractor shall be at the sole risk of the Contractor and any errors or omissions shall be borne by the Contractor.	
	To Collection £	

1. PRELIMINARIES/ GENERAL CONDITIONS

Ref.	Description	£
.09	The Specification sets out the basic material and workmanship specification. Where the Contractor wishes to propose an alternative work method or material they must: - Price the document in full (to allow comparison with other quotations). - Provide in writing, to accompany the quotation, details of what they propose, including the method of working and materials as appropriate. - Only suggest material alternatives that are equivalent or better in terms of quality. - Only suggest material alternatives that are more competitively priced. - Identify lead-in times (which should be better than the materials specified).	
.10	The Contractor is to comply with all Health and Safety requirements as set out in the Appendices.	
.11	The Contractor must provide with their quotation submission the following: - A completed Schedule of Works (see Section 3). - A completed General Summary (see Section 4). - A completed Form of Quotation (see Section 5). - A construction programme from date of order through to Practical Completion.	
3.0	**General**	
.01	Work areas on site will comprise, all affected internal areas of Days Lock House.	
.02	The building shall remain occupied for the duration of the Works. The Contractor is to ensure any areas of public access are to be kept clear of materials. The Contractor is to include for all liaison with the resident. The Main Contractor and any Sub-Contractors shall prepare site specific risk assessments and method statements for all tasks and operations being carried out in conjunction with this project.	
.03	The Contractor is to make their own arrangements for the parking of vehicles.	
.04	The Contractor is to allow for all access necessary to safely undertake the works - detailed within this specification.	
	To Collection £	

1. PRELIMINARIES/ GENERAL CONDITIONS

Ref.	Description	£
.05	All work areas and access areas around the building are to be secured with fencing, hoarding and protective sheeting. The Contractor is to allow for all relevant signage and security to ensure no unauthorised persons are able to access the working area. The work area is to be kept secure at all times.	
.06	Allow for all builders works in connection with the Works, including the filling of - holes, making good and the like.	
.07	Allow for the protection of all existing finishes to be retained. Protection is to be fully maintained for the duration of the works or until the surfaces in question are no longer at risk from contamination.	
.08	All surfaces are to be left clean and tidy upon completion.	
.09	Allow for all arisings to be carted away and according to the nature of the waste, suitably disposed off site at the Contractor's cost.	
.10	All works to be carried out in accordance with the relevant section(s) of the current issue of BS8000. Materials are to be new and fit for purpose being CE marked and / or BS accredited for the use it is applied to, where no such reference is made in the Materials and Workmanship. Good practice guidance that relates to the work shall also prevail and is to be expected in the work.	
.11	The Building Contractor shall be the Main Contractor and shall be responsible for liaising and communicating with any specialist Sub-Contractors to ensure effective and co-ordinated working on site, adherence to the work programme and contract sum.	
.12	Services: Comply with Byelaws and Regulations of the relevant Statutory Authority. Carry out final tests and commissioning so that all services are in full working order at the completion of the work.	
.13	Allow for liaising with Mechanical, Electrical and other specialist services Contractors to ensure installations and systems have been isolated or otherwise made safe before carrying out the works and at all stages throughout the course of the works.	
	To Collection £	

1. PRELIMINARIES/ GENERAL CONDITIONS

Ref.	Description	£
.14	The Contractor shall be responsible for undertaking a Condition Survey of all working and access areas prior to the commencement of the Works and shall be responsible for undertaking any resultant repairs.	
.15	The Contractor is to allow for a full time, working Site Manager for the duration of the works. The Site Manager is to have regular access to emails, to enable communication throughout the works.	
.16	The Main Contractor shall act as the Principal Contractor in accordance with the Construction (Design and Management) Regulations, 2015.	
.17	The Contractor is to confirm all assumptions within the returned quotations.	
	To Collection £	

1. PRELIMINARIES/ GENERAL CONDITIONS

Ref.	Description	£
4.0	**Collection**	
	Page 1	
	Page 2	
	Page 3	
	Page 4	
	Page 5	
	Total to Main Summary £	

1. PRELIMINARIES

1.2 - Provisional Sums

1. PRELIMINARIES

1.2 Provisional Sums

Ref.	Description		£
	General Notes		
•	The Contractor shall include the following Provisional Sums in their Proposals		
•	The values in this section are deemed to be net sub-contract values. Main Contract allowances for preliminaries, general attendances, overheads and profits are to be included elsewhere.		
•	The Contractor shall be deemed to have made due allowance in programming, planning, design and other Preliminaries Items for Works covered by the Provisional Sums in this section.		
•	The Contractor shall not incorporate any further Provisional Sums into their proposals		
1.2.1	**Provisional Sums**		
A	Contingency Sum	Item	2,000.00
B	Overheads & Profit on Provisional Sums & Contingencies Include for overheads and profit on all Provisional Sums. Extend into the cash columns the following on the value of the Provisional Sums, if expended	_____%	
		Total to Main Summary £	

2. MATERIALS AND WORKMANSHIP SPECIFICATION

Table of Contents

20-10-10/110 Gypsum board suspended ceiling system

System outline

20-10-10/110 Gypsum board suspended ceiling system

- System performance:
- Execution: 20-10-10/620 Installing insulation above suspended ceilings.

Products

45-45-70/385 Mineral wool slab insulation

- General requirements: Installation to achieve a minimum of 270mm of insulation within the roof void.
- Manufacturer: ROCKWOOL Ltd
- Product reference: ROCKWOOL Roll

Execution

20-10-10/620 Installing insulation above suspended ceilings

- Fitting: Fit accurately and firmly with butted joints and no gaps. Lay insulation in the widest practical widths to suit grid member spacings.
- Installing mineral wool quilt: Lay with close butted joints aligned end-to-end. Encase in fire retardant cotton scrim cloth
- Sloping and vertical areas of ceiling system: Fasten insulation, to prevent displacement.
- Services: Do not cover electrical cables that have not been sized for such. Cut insulation carefully around electrical fittings, etc. Do not lay insulation over luminaires.

Ω End of system

20-55-75/165 Resilient sheet flooring system

System outline

20-55-75/165 Resilient sheet flooring system

- Preparation:
  - Base: 20-55-75/635 Remove existing floorings.
- Smoothing and levelling underlayment compound: 45-55-10/320 Smoothing or levelling underlayment compound.
- Sheet:
  - Type: 45-20-70/360 PVC sheet with particle based enhanced slip resistance type Kitchens and lobbies and 45-20-70/360 PVC sheet with particle based enhanced slip resistance type Bathrooms and WCs.
- Seams: Welded or sealed.
- System accessories: 45-20-35/355 Threshold strips.
- Execution: 20-55-75/615 Conditioning of flooring prior to laying;
  20-55-75/620 Environmental conditions before, during and after laying;
  20-55-75/630 Assessing suitability of bases;
  20-55-75/680 Layout – setting out seams;
  20-55-75/695 Colour consistency;
  20-55-75/725 Welded or sealed seams;
  20-55-75/745 Joints at doorways;
  and 20-55-75/750 Fixing edgings and cover strips.

Products

45-20-35/355 Threshold strips

- Manufacturer: Gradus
- Product reference: Threshold Trim
- Profile: To suit installation and existing floor coverings.
- Colour/ Finish: Silver.

45-20-70/360 PVC sheet with particle based enhanced slip resistance type Kitchens and lobbies

- Manufacturer: Polyflor Ltd
- Product reference: Polysafe Wood fx PUR safety floor, including hot welding rods
- Colour: To be confirmed.

45-20-70/360 PVC sheet with particle based enhanced slip resistance type Bathrooms and WCs

- Manufacturer: Polyflor Ltd
- Product reference: Polysafe Standard PUR Safety Floor
- Colour: To be confirmed

45-55-10/320 Smoothing or levelling underlayment compound

- Manufacturer: Ardex UK Ltd
- Material: Ardex Feather Finish Rapid Drying Patching and Smoothing Compound

Execution

20-55-75/615 Conditioning of flooring prior to laying

- Standards: To BS 8203 and BS 5325.
- General:
  - Before laying: Condition materials by unpacking and separating in spaces where they are to be laid.
  - Resilient flooring rolls: Maintain in an upright position.
- Conditioning time and temperature (minimum):
  - Generally: As recommended by manufacturer.
  - Materials stored or transported at a temperature below 10°C immediately before laying: Extend time by a factor of two.

20-55-75/620 Environmental conditions before, during and after laying

- Temperature and humidity: Maintain approximately at levels which will prevail after building is occupied.
- Ventilation: Adequate.

20-55-75/630 Assessing suitability of bases

- Existing bases:
  - Notification: Before commencing work, confirm that existing bases will, be suitable to receive coverings.
  - Suitability of bases and conditions within any area: Do not lay coverings on unsuitable bases and in unsuitable conditions.
- New wet-laid bases:
  - Base drying aids: Do not use for at least four days before moisture content testing.
  - Base moisture content: Test in accordance with BS 5325, Annexe A or BS 8203, Annexe A.
  - Locations for readings: In all corners, along edges, and at regular centres over general areas being tested.
  - Laying coverings: Do not start until all readings show 75% relative humidity or less.
- Trowelled finishes: Uniform, smooth surface free from trowel marks and other blemishes. Abrade suitably to receive floor covering material.

20-55-75/635 Remove existing floorings

- Base: Clear of covering and as much adhesive as possible. Skim with smoothing underlayment compound to give a smooth, even surface.

20-55-75/680 Layout – setting out seams

- Setting out of seams: Seams should be unobtrusive, kept to a minimum.

20-55-75/695 Colour consistency

- Appearance in any one area or room: Free from banding or patchiness.

20-55-75/725 Welded or sealed seams

- Materials: Hot welding rods.

- Commencement (minimum): 24 hours after laying, or after adhesive has set.
- Joints: Neat, smooth. Strongly bond. Flush with finished surface.

20-55-75/745 Joints at doorways

- Joint location: On centre line of door leaf.

20-55-75/750 Fixing edgings and cover strips

- Fixing: Secure with edge of covering gripped. Use matching fasteners where exposed to view.

Ω End of system

25-85-97/140 Internal wall tiling system

System outline

25-85-97/140 Internal wall tiling system

- Substrate preparation: Hack off existing wall tiles and leave ready for the installation of replacement tiles.
- Tiles:
  - Types: 45-80-95/310 Ceramic tiles.
  - Adhesives: 45-50-00/325 Cementitious adhesives.
  - Application: Thin bed, ribbed.
- Grout: 45-55-50/405 Cementitious grout.
- System accessories: Tile trim to all exposed edges and external corners.
- Execution: 25-85-97/620 Suitability of backgrounds (minimum drying times); 25-85-97/625 Making good existing backgrounds generally; 25-85-97/630 Making good plaster; 25-85-97/635 Fixing and preparing board backgrounds; 25-85-97/640 Fixing plasterboard backgrounds; and 25-85-97/797 Grouting.
- System completion: 25-85-97/805 Cleaning and maintenance of wall tiling systems.

Products

45-50-00/325 Cementitious adhesives

- Manufacturer: ARDEX UK Ltd
- Product reference: ARDEX X 7 R White Rapid Setting Flexible Tile Adhesive
- Execution: 45-50-00/610 Applying adhesives generally.

45-55-50/405 Cementitious grout

- Manufacturer: Ardex UK Ltd
- Product reference: Ardex F 4 Fine Tile Grout
- Colour: White

45-80-95/310 Ceramic tiles

- Manufacturer: Johnson Tiles
- Product reference: Cristal White Bumpy Gloss ceramic wall tile
- Colour: White
- Size: 150 x150 mm
- Thickness: 5.5mm
- Execution: 45-80-95/610 Fixing tiles.

Execution

25-85-97/620 Suitability of backgrounds (minimum drying times)

- Generally: Start tiling work after the minimum drying times specified have expired.
- Minimum drying times:
  - Gypsum plaster: Four weeks.

25-85-97/625 Making good existing backgrounds generally

- Defective areas of existing substrates:
  - Loose or hollow areas of concrete: Cut out.
  - Loose, soft, friable or badly cracked areas of plaster: Remove. Cut back to straight horizontal and vertical edges.
  - Loose or hollow-sounding areas of tiling: Remove.
  - Paint with unsatisfactory adhesion: Remove so as not to impair bedding adhesion.
  - Brick walls: Flush point joints.
- Efflorescence, laitance, dirt and other loose material: Remove.
- Organic growth: Remove.
- Deposits of oil, grease, formwork release agents and other surface residues: Remove.
- Soft or unsound adhesive residues: Remove without damaging backgrounds.
- Tile, paint and other non-porous surfaces: Clean.
- Wet backgrounds: Dry before tiling.

25-85-97/630 Making good plaster

- Plaster: Dry, solidly bedded, free from dust and friable matter.
- Making good: Use plaster or non-shrinking filler.

25-85-97/635 Fixing and preparing board backgrounds

- Boards: Dry, securely fixed and rigid with no protruding fixings.

25-85-97/640 Fixing plasterboard backgrounds

- Boards: Dry, securely fixed and rigid with no protruding fixings and face to receive decorative finish exposed.

25-85-97/797 Grouting

- Sequence: Grout when bed/ adhesive has set sufficient to prevent disturbance of tiles.
- Joints: Free from dust and debris.
- Generally: Fill joints completely. No gaps.
- Profile: Flush.
- Polishing: When grout is hard, polish tiling with a dry cloth. Leave tile surfaces free from blemishes and residues.

45-50-00/610 Applying adhesives generally

- Surface preparation: Dry, clean, free from oil, grease and other contaminants.
- Temporary support and clamping: Do not disturb components. Do not mark surfaces.
- Finished joints: Fully bonded and free of surplus adhesive.

45-80-95/610 Fixing tiles

- Setting out: Minimize number of cut tiles, maximize size and locate unobtrusively.
- Tile cutting: Neat and accurate.
- Fixing: Fully adhere to substrate.
- Surplus bedding material in joints and on tile faces: None permitted.
- Joints in tiling:
  - General: True to line, continuous and without steps. Horizontal, vertical and aligned round corners.
  - Joints in adjoining floors, walls and skirtings: Align.
  - Joint depth: Full thickness of tile.
- Flatness and regularity of tiling:
  - Sudden irregularities: Not permitted.
  - Deviation of surface:

    Measurement: From underside of a 2 m straightedge placed anywhere on surface.

    Obstruction by tiles: None.

    Gap (maximum): 3 mm.
  - Deviation between tile surfaces either side of any joint (maximum):

    Joints less than 6 mm wide: 1 mm.

    Joints greater than 6 mm wide: 2 mm.
- Movement joints: Do not tile over structural movement joints.

System completion

25-85-97/805 Cleaning and maintenance of wall tiling systems

- Standards: In accordance with the recommendations of BS 5385-1, BS 5385-2, BS 5385-4 and The Tile Association publication The cleaning of ceramic tiles.
- Cleaning materials and methods:
  - Generally: Avoid the use of chemicals which may attack or damage tiles, grouts, adhesives or bedding.
  - Glazed tiles: Use pH neutral, non-abrasive detergents.

Ω End of system

35-85-60/125 Decorative wood stain or dye system

System outline

35-85-60/125 Decorative wood stain or dye system

- System manufacturer: Dulux Trade
- Preparation:
- Finishing coats: 45-35-84/418 Wood stains or dyes
- Execution: 35-85-60/620 Preparation for coating systems generally type A;
  35-85-60/623 Fixtures and fittings removal before applying coating systems type A;
  35-85-60/637 Previously coated wood;
  35-85-60/643 Uncoated wood;
  and 35-85-60/700 Applying coating generally.

Products

45-35-84/418 Wood stains or dyes

- Manufacturer: Dulux Trade, brand of AkzoNobel
- Product reference: Classic Select Woodstain
- Colour: To match the existing
- Execution: 2 nr coats

Execution

35-85-60/620 Preparation for coating systems generally type A

Shared by: 35-85-60/125 Decorative wood stain or dye system; and 35-85-60/195 Water-borne paint system.

- Standard: In accordance with BS 6150.
- Substrates: Sufficiently dry in depth to suit coating.
- Suspected existing hazardous materials: Prepare risk assessments and method statements covering operations, disposal of waste, containment and reoccupation, and obtain approval before commencing work.
- Efflorescence salts: Remove.
- Dirt, grease and oil: Remove.
- Contamination of surfaces and substrates: Give notice.
- Surface irregularities: Remove.
- Joints, cracks, holes and other depressions: Fill flush with surface. Provide smooth finish.
- Dust, particles and residues from preparation: Remove and dispose of safely.
- Water-based stoppers and fillers: Apply before priming.
- Oil based stoppers and fillers: Apply after priming.
- Doors, opening windows and other moving parts: Ease, if necessary, before coating.

35-85-60/623 Fixtures and fittings removal before applying coating systems type A

Shared by: 35-85-60/125 Decorative wood stain or dye system; and 35-85-60/195 Water-borne paint system.

- Items to be removed: Ironmongery and all other fittings and fixtures
- Replacement: Refurbish as necessary, refit when coating is dry.

35-85-60/630 Previously coated surfaces generally

Shared by: 35-85-60/637 Previously coated wood; 35-85-60/645 Previously coated steel; 35-85-60/673 Previously painted masonry and render; 35-85-60/677 Previously painted plaster; and 35-85-60/697 Existing gutters.

- Preparation: In accordance with BS 6150, clause 11.5.
- Contaminated or hazardous surfaces:
  - Coatings suspected of containing lead: Give notice.
  - Substrates suspected of containing asbestos: Give notice.
  - Significant rot, corrosion or other degradation of substrates: Give notice.
- Risk assessments and method statements for suspected existing hazardous materials: Submit. Obtain approval before commencing work.
- Removing coatings: Do not damage substrate and adjacent surfaces or adversely affect subsequent coatings.
- Loose, flaking or otherwise defective areas: Carefully remove to a firm edge.
- Alkali affected coatings: Completely remove.
- Retained coatings: Thoroughly clean to remove dirt, grease and contaminants. Provide key on gloss coated surfaces
- Partly removed coatings: Apply additional preparatory coats to restore original coating thicknesses, with flush surface a junctions.
- Completely stripped surfaces: Prepare as for uncoated surfaces.

35-85-60/637 Previously coated wood

Shared by: 35-85-60/125 Decorative wood stain or dye system; and 35-85-60/195 Water-borne paint system.

- General requirements: 35-85-60/630 Previously coated surfaces generally.
- Existing finishes: Remove where loose, flaking or otherwise defective.
- Degraded or weathered surface wood: Take back to provide suitable substrate.
- Degraded substrate wood: Repair with sound wood of same species and Cut out and carry out wood filler repair.

35-85-60/643 Uncoated wood

Shared by: 35-85-60/125 Decorative wood stain or dye system; and 35-85-60/195 Water-borne paint system.

- General: Provide smooth, even finish with arrises and moulding edges lightly rounded or eased.
- Heads of fasteners: Countersink sufficient to hold stoppers/ fillers.

35-85-60/700 Applying coating generally

Shared by: 35-85-60/125 Decorative wood stain or dye system; and 35-85-60/195 Water-borne paint system.

- Application: In accordance with BS 6150, clause 9.

- Environmental conditions: Maintain suitable temperature, humidity and air quality during application and drying.
- Surfaces: Clean and dry at time of application.
- Thinning and intermixing of coatings: Not permitted unless recommended by manufacturer.
- Overpainting: Do not paint over intumescent strips or silicone mastics.
- Initial coats:
  - Thickness: To suit surface porosity.
  - Application: As soon as possible on same day as preparation is completed.
- Finish: Even, smooth and of uniform colour. Free from brush marks, sags, runs and other defects.
- Cutting in: Cut in neatly.
- Doors, opening windows and other moving parts: Ease before coating, and between coats.

Ω End of system

35-85-60/175 Solvent-borne paint system

System outline

35-85-60/175 Solvent-borne paint system

- System manufacturer: Dulux Trade
- Finishing coats: 45-35-84/310 Solvent-borne gloss finishes
- Execution: 35-85-60/620 Preparation for coating systems generally type B; 35-85-60/645 Previously coated steel; and 35-85-60/647 Preprimed steel.

Products

45-35-84/310 Solvent-borne gloss finishes

- Manufacturer: Dulux Trade, brand of AkzoNobel
- Product reference: Metalshield Gloss
- Colour: To match the existing
- Execution: 1 nr Metalshield Primer and 2 nr topcoats

Execution

35-85-60/620 Preparation for coating systems generally type B

- Standard: In accordance with BS 6150.
- Substrates: Sufficiently dry in depth to suit coating.
- Suspected existing hazardous materials: Prepare risk assessments and method statements covering operations, disposal of waste, containment and reoccupation, and obtain approval before commencing work.
- Efflorescence salts: Remove.
- Dirt, grease and oil: Remove.
- Contamination of surfaces and substrates: Give notice.
- Surface irregularities: Remove.
- Joints, cracks, holes and other depressions: Fill flush with surface. Provide smooth finish.
- Dust, particles and residues from preparation: Remove and dispose of safely.
- Water-based stoppers and fillers: Apply before priming.
- Oil based stoppers and fillers: Apply after priming.

35-85-60/630 Previously coated surfaces generally

Shared by: 35-85-60/637 Previously coated wood; 35-85-60/645 Previously coated steel; 35-85-60/673 Previously painted masonry and render; 35-85-60/677 Previously painted plaster; and 35-85-60/697 Existing gutters.

- Preparation: In accordance with BS 6150, clause 11.5.
- Contaminated or hazardous surfaces:
  - Coatings suspected of containing lead: Give notice.

  - Substrates suspected of containing asbestos: Give notice.
  - Significant rot, corrosion or other degradation of substrates: Give notice.
- Risk assessments and method statements for suspected existing hazardous materials: Submit. Obtain approval before commencing work.
- Removing coatings: Do not damage substrate and adjacent surfaces or adversely affect subsequent coatings.
- Loose, flaking or otherwise defective areas: Carefully remove to a firm edge.
- Alkali affected coatings: Completely remove.
- Retained coatings: Thoroughly clean to remove dirt, grease and contaminants. Provide key on gloss coated surfaces
- Partly removed coatings: Apply additional preparatory coats to restore original coating thicknesses, with flush surface a junctions.
- Completely stripped surfaces: Prepare as for uncoated surfaces.

35-85-60/645 Previously coated steel

- General requirements: 35-85-60/630 Previously coated surfaces generally.
- Defective, loose or flaking paintwork: Remove to leave a firm edge and clean bright metal
- Sound paintwork: Provide key for subsequent coats.
- Corrosion and loose scale: Take back to bare metal.
- Residual rust: Treat with a proprietary removal solution.
- Bare metal: Apply primer as soon as possible.
- Remaining areas: Degrease.

35-85-60/647 Preprimed steel

- Areas of defective primer, corrosion and loose scale: Take back to bare metal. Reprime as soon as possible.

Ω End of system

35-85-60/195 Water-borne paint system

System outline

35-85-60/195 Water-borne paint system

- System manufacturer: Dulux Trade
- Undercoats: 45-35-64/415 Water-borne undercoats
- Finishing coats: 45-35-84/316 Water-borne gloss finishes;
  45-35-84/320 Water-borne matt or flat finishes;
  and 45-35-84/318 Water-borne mid-sheen finishes.
- Execution: 35-85-60/620 Preparation for coating systems generally type A;
  35-85-60/623 Fixtures and fittings removal before applying coating systems type A;
  35-85-60/637 Previously coated wood;
  35-85-60/643 Uncoated wood;
  35-85-60/673 Previously painted masonry and render;
  35-85-60/675 Uncoated plaster;
  35-85-60/677 Previously painted plaster;
  35-85-60/697 Existing gutters;
  and 35-85-60/700 Applying coating generally.

Products

45-35-64/415 Water-borne undercoats

- Manufacturer: Dulux Trade, brand of AkzoNobel
- Product reference: Quick Dry Undercoat
- Colour: To suit proposed top coat colour.

45-35-84/316 Water-borne gloss finishes

- Manufacturer: Dulux Trade, brand of AkzoNobel
- Product reference: Quick Dry Gloss
- Colour: To be confirmed
- Execution: 1 nr undercoat and 1 nr topcoat

45-35-84/318 Water-borne mid-sheen finishes

- Manufacturer: Dulux Trade, brand of AkzoNobel
- Product reference: Vinyl Silk
- Colour: To be confirmed
- Execution: 3 nr top coats, in addition prime all bare areas

45-35-84/320 Water-borne matt or flat finishes

- Manufacturer: Dulux Trade, brand of AkzoNobel
- Product reference: Vinyl Matt
- Colour: To be confirmed
- Execution: 2 nr top coats, in addition spot prime all bare areas.

Execution

35-85-60/620 Preparation for coating systems generally type A

Shared by: 35-85-60/125 Decorative wood stain or dye system; and 35-85-60/195 Water-borne paint system.

- Standard: In accordance with BS 6150.
- Substrates: Sufficiently dry in depth to suit coating.
- Suspected existing hazardous materials: Prepare risk assessments and method statements covering operations, disposal of waste, containment and reoccupation, and obtain approval before commencing work.
- Efflorescence salts: Remove.
- Dirt, grease and oil: Remove.
- Contamination of surfaces and substrates: Give notice.
- Surface irregularities: Remove.
- Joints, cracks, holes and other depressions: Fill flush with surface. Provide smooth finish.
- Dust, particles and residues from preparation: Remove and dispose of safely.
- Water-based stoppers and fillers: Apply before priming.
- Oil based stoppers and fillers: Apply after priming.
- Doors, opening windows and other moving parts: Ease, if necessary, before coating.

35-85-60/623 Fixtures and fittings removal before applying coating systems type A

Shared by: 35-85-60/125 Decorative wood stain or dye system; and 35-85-60/195 Water-borne paint system.

- Items to be removed: Ironmongery and all other fittings and fixtures
- Replacement: Refurbish as necessary, refit when coating is dry.

35-85-60/630 Previously coated surfaces generally

Shared by: 35-85-60/637 Previously coated wood; 35-85-60/645 Previously coated steel; 35-85-60/673 Previously painted masonry and render; 35-85-60/677 Previously painted plaster; and 35-85-60/697 Existing gutters.

- Preparation: In accordance with BS 6150, clause 11.5.
- Contaminated or hazardous surfaces:
  - Coatings suspected of containing lead: Give notice.
  - Substrates suspected of containing asbestos: Give notice.
  - Significant rot, corrosion or other degradation of substrates: Give notice.
- Risk assessments and method statements for suspected existing hazardous materials: Submit. Obtain approval before commencing work.
- Removing coatings: Do not damage substrate and adjacent surfaces or adversely affect subsequent coatings.
- Loose, flaking or otherwise defective areas: Carefully remove to a firm edge.
- Alkali affected coatings: Completely remove.
- Retained coatings: Thoroughly clean to remove dirt, grease and contaminants. Provide key on gloss coated surfaces
- Partly removed coatings: Apply additional preparatory coats to restore original coating thicknesses, with flush surface a junctions.

- Completely stripped surfaces: Prepare as for uncoated surfaces.

35-85-60/637 Previously coated wood

Shared by: 35-85-60/125 Decorative wood stain or dye system; and 35-85-60/195 Water-borne paint system.

- General requirements: 35-85-60/630 Previously coated surfaces generally.
- Existing finishes: Remove where loose, flaking or otherwise defective.
- Degraded or weathered surface wood: Take back to provide suitable substrate.
- Degraded substrate wood: Repair with sound wood of same species and Cut out and carry out wood filler repair.

35-85-60/643 Uncoated wood

Shared by: 35-85-60/125 Decorative wood stain or dye system; and 35-85-60/195 Water-borne paint system.

- General: Provide smooth, even finish with arrises and moulding edges lightly rounded or eased.
- Heads of fasteners: Countersink sufficient to hold stoppers/ fillers.

35-85-60/673 Previously painted masonry and render

- General requirements: 35-85-60/630 Previously coated surfaces generally.
- Loose and flaking material: Remove.
- Deposits: Remove
- Surface defects: Fill with sand/ cement mixture and finish to match surrounding surface.

35-85-60/675 Uncoated plaster

- Nibs, trowel marks and plaster splashes: Scrape off.
- Loose or otherwise defective material: Remove.
- Overtrowelled ‘polished’ areas: Key lightly.
- Surface defects: Fill with plaster or filler and abrade to a smooth surface.

35-85-60/677 Previously painted plaster

- General requirements: 35-85-60/630 Previously coated surfaces generally.
- Loose or otherwise defective material: Remove.
- Surface defects: Fill with plaster or other suitable filler and abrade to a smooth surface.

35-85-60/697 Existing gutters

- General requirements: 35-85-60/630 Previously coated surfaces generally.
- Dirt and debris: Remove from inside of gutters.
- Defective joints: Clean and seal with suitable jointing material.

35-85-60/700 Applying coating generally

Shared by: 35-85-60/125 Decorative wood stain or dye system; and 35-85-60/195 Water-borne paint system.

- Application: In accordance with BS 6150, clause 9.
- Environmental conditions: Maintain suitable temperature, humidity and air quality during application and drying.
- Surfaces: Clean and dry at time of application.
- Thinning and intermixing of coatings: Not permitted unless recommended by manufacturer.

- Overpainting: Do not paint over intumescent strips or silicone mastics.
- Initial coats:
  - Thickness: To suit surface porosity.
  - Application: As soon as possible on same day as preparation is completed.
- Finish: Even, smooth and of uniform colour. Free from brush marks, sags, runs and other defects.
- Cutting in: Cut in neatly.
- Doors, opening windows and other moving parts: Ease before coating, and between coats.

Ω End of system

3. SCHEDULE OF WORKS

3. SCHEDULE OF WORKS

Ref.	Description	NBS Clause	£
	General Notes		
•	The Contractor is to take responsibility for the schedule and is to ensure its completeness with regards to the proposed scope of works as defined within the Pricing Documents.	-	
•	The Contractor is to add and omit items to / from the schedule in order to provide a definitive costing for the proposed works.	-	
•	All items contained within the schedule must be individually priced where ever possible and items should not be grouped together quoting lump sum prices.	-	
1.0	General		
.01	Allow for access as considered appropriate to the terrain, access to the property and tasks to be undertaken.	-	
	Details of access arrangements are included within Appendix C.	-	
.02	Property:	-	
	Days Lock, Little Wittenham, Abingdon, Oxford, OX14 4RB		
.03	Allow here for any access, scaffold or MEWP as considered suitable for the works to be undertaken and the access to the property.	-	
.04	Prior to commencement of the works, undertake a targetted Refurbishment and Demolition Asbestos Survey and provide a copy of the report. For reference previous asbestos survey reports are included within this specification. Asbestos survey to be undertaken by UKAS Accrediated Asbestos Survey Company, with accrediation to UKAS 17020 and 17025 and the method of surveying confirms to HSG 264.	-	
		To Collection £	

3. SCHEDULE OF WORKS

Ref.	Description	NBS Clause	£
2.0	**Kitchen**		
.01	Allow to carefully protect all surfaces and remove all existing tiling within the kitchen. Allow to undertake all plaster repairs necessary. Supply and install new 150mm x 150mm tiles. Provide all trims to the perimeter of the tiling and grouting. Reseal junction with the worktop with a mould resistant silicone sealant, Dow Corning 785 or equal and approved.	25-85-97 /140	
3.0	**Bathroom**		
.01	Carefully disconnect, remove and cart away the electric shower, including all plumbing, waste and electrical connections. Cap the waste and plumbing connections. No dead legs are to remain to the water supplies.		
.02	Carefully remove and cart away the shower tray and screen.		
.03	Allow to carefully protect all surfaces and remove and cart away all existing tiling within the bathroom. Allow to undertake all plaster repairs necessary prior to the installation of new 150mm x 150mm tiles. Provide all trims to the perimeter of the tiling and grouting. Reseal the junction with all sanitary goods, with Dow Corning 785 or equal and approved.	25-85-97 /140	
.04	Carefully remove existing floor coverings in the kitchen and lobby. Ensure locations of underpinning grout injection are level with the existing floor finish. Apply self-levelling compound prior to installation of the new floor covering. Supply and install new vinyl floor covering, to include all trims, threshold strips and jointing strips as required.	20-55-75 /165 45-20-70 /360	
.05	Carefully remove the existing floor covering in the bathroom. Apply self levelling compound prior to installation of the new floor covering and make good where shower removed. Supply and install new vinyl floor covering, to include all trims, threshold strips and jointing strips as required.	20-55-75 /165 45-20-70 /360	
		To Collection £	

3. SCHEDULE OF WORKS

Ref.	Description	NBS Clause	£
.06	Prepare and redecorate all previously decorated elements within the bathroom, lobby and kitchen. Including all filling and making good of cracking. Ceilings to be Vinyl Matt, 45-35-84/320, except in the bathroom where they are to be Vinyl Silk, 45-35-84/318. Walls to be Vinyl Silk, 45-35-84/318. Skirtings, window boards, door frames, doors and other previously decorated joinery to be Quick Dry Gloss, 45-35-84/316 or Classic Woodstain, 45-35-84/418, to match the existing finish. Radiators and associated pipework to be Metalshield Gloss, 45-35-84/310.	35-85-60 /125, 175 & 195	
.07	Supply and install new MMMF insulation to a depth of 270mm to the loft of the main roof and extensions. Include for the provision of insulation to the back of the loft hatches. Include here for the provision of additional ventilation where required to the tiles or eaves. Ventilation openings at the eaves to provide an area the equivalent of a 25mm continuous gap with a clear path to the roof space. Allow for lifting of electrical cables as necessary to facilitate the installation	20-10-10 /110	
		To Collection £	

3. SCHEDULE OF WORKS

Ref.	Description	NBS Clause	£
	Collection		
	Page 1		
	Page 2		
	Page 3		
		Total to Main Summary £	

4. MAIN SUMMARY

RIDGE

4. MAIN SUMMARY

Ref.	Description	£
1	PRELIMINARIES/GENERAL CONDITIONS	
	1.1 Preliminaries	
	1.2 Provisional Sums	
2	MATERIALS AND WORKMANSHIP	
3	SCHEDULE OF WORKS	
4	MAIN CONTRACTOR OVERHEADS AND PROFIT	
	Add a percentage to cover all Main Contractor overheads and profits based on the value of this tender Submission. The percentage is to allow for all adjustments to the net value of work (including Main Contractor Discount). No other adjustments shall apply. ..... %	
	Contractor : {Contractors Name}	
	Address :	
	.....	
	.....	
	.....	
	Date :	
	To Form of Quotation £	

5. FORM OF QUOTATION

5. FORM OF QUOTATION

To: Environment Agency
Thames Region, Kings Meadow House
Kings Meadow Road
Reading
Berkshire
RG1 8DG

From: .....
.....
.....
.....
.....

We have examined the following documents:

- Pricing Document and Schedule of Works
- Drawings and Documents listed in Appendix A
- Pre Construction Information

We offer to carry out the whole of the Works described in accordance with the documents referred tc above;

for the sum of £ ..... (in words)

£ ..... (in figures) exclusive of any VAT chargeable

within ..... weeks from acceptance of our quotation, comprising a period of:

- ..... weeks from acceptance to the Date of Possession and
- ..... weeks from the Date of Possession to the Date for Completion.

For the purposes of the warranties and guarantee requirements mentioned in the Pricing Document, We have reviewed the contents of the Pricing Document and accept, without amendment, the wording set out in the appendices.

We enclose our fully priced document in the separate envelope provided and marked with our name

We undertake in the event of your acceptance to execute with you a formal contract embodying all the conditions and terms contained in this offer within 21 days of being required to do so by the Employer

This quotation remains open for acceptance for 84 days from the latest date fixed for the submission of quotes.

We confirm that this quote is submitted at our expense and agree that the Employer need not necessarily accept the lowest or any other quote.

I/We confirm the following Principle Domestic Sub Contractors will be employed on this project. I/We confirm their sub contract quotes have been used within our quote.

Our list of proposed sub-contractors are;

.....

5. FORM OF QUOTATION

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5. FORM OF QUOTATION

Certificate of Bona Fide Quotation

The essence of selective quotation is that the client shall receive bona fide competitive quotes from al those quoting. In recognition of the principle, I certify that this is a bona fide quote, intended to be competitive, and that we have not fixed or adjusted the amount of the quote by or under or in accordance with any agreement or arrangement with any other person. I also certify that we have not done and we undertake that will not do at any time before the hour and date specified for return of this quote any of the following acts:-

a. Communication to a person other than the person calling for those quotes the amount or approximate amount of the proposed quote, except where the disclosure, in confidence, of the approximate amount of the quote was necessary to obtain insurance premium quotations required for the preparation of the quotation.

b. entering into any agreement or arrangement with any other person that he shall refrain from quoting or as to the amount of any quote to be submitted.

c. offering or paying or giving or agreeing to pay or give any sum of money or valuable consideration directly or indirectly to any person for doing or having done or causing or having caused to be done in relation to any other quote or proposed quote for the said work any act or thing or sort described above.

In this certificate the word "person" includes any person any body or association, corporate or unincorporate and "any agreement or arrangement" includes any such transaction, formal or informal, and whether legally binding or not.

Signed by or on behalf of : {Contractors Name}
……

Signature : ……
duly authorised to sign

Position : ……

Date : …….. 20…..

Note: The completed form of quotation together with the information requested must be received by the EA at the above address no later than 12:00 hours on the date set out in the quotation invitation.

A. DOCUMENT REGISTER

PRICING DOCUMENT

Internal Remedial Works at Days Lock House

RIDGE

A. DOCUMENT REGISTER

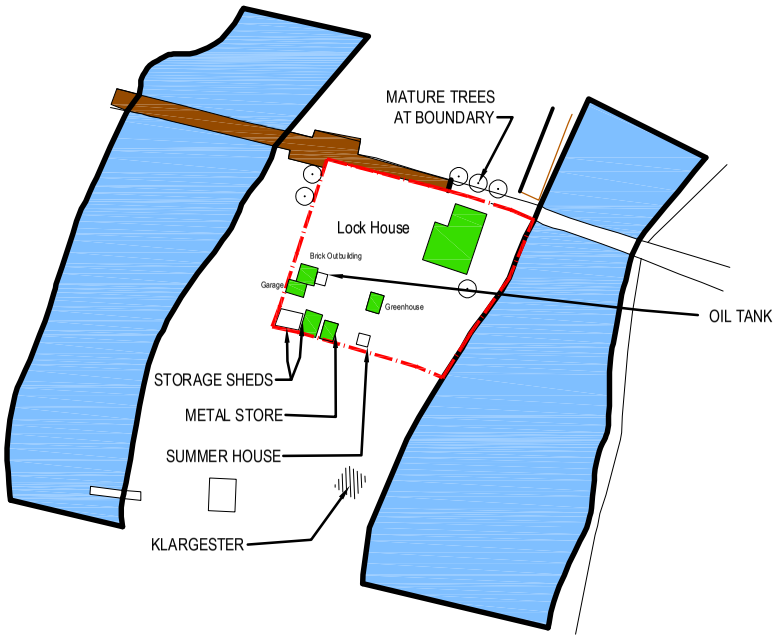
Document Ref	Description	Revision
Consultant Name :	**RIDGE**	Project Ref : **5013192**
	Documents	
	Pricing Document	v5
	Drawings	
5014850/018	A001 Days Lock Site Plan	
5014850/018	A002 Days Lock. Ground Floor Plan	
5014850/018	A003 Days Lock. First Floor Plan	

Client Name :	**Environment Agency**	Project Ref :
	Location Plans	
	Appendix C	
	Pre Construction Health and Safety Information	
	Appendix D	
	EA Safety, Health and Environment Code of Practice	
	Appendix E	
	Health and Safety Requirements	
	Appendix F	

B. DRAWINGS

NOTES:

1. DO NOT SCALE
2. DRAWINGS TO BE READ IN CONJUNCTION WITH ALL SERVICES AND STRUCTURAL ENGINEERS DRAWINGS & SPECIFICATIONS.
3.



REFERENCE

- DOMESTIC BUILDINGS
- ACCESS ROUTE TO DWELLING
- RIVER THAMES
- CONCESSION TRADING
- BOUNDARY OF DWELLING AND GARDEN

REF	DATE	REVISION	DRAWN	CHECKED

SCALE	DATE	DRAWN BY	CHECKED BY
1:1250@A4	08/2021	HW	ES

DRAWING

Days Lock

Location Plan

PROJECT

Condition and PPM Survey

CLIENT

Environment Agency

1:1250

0 5 10 15 20 30 40 50M

RIDGE

BEAUMONT HOUSE
59 HIGH STREET
THEALE
READING, RG7 5AL

TEL: 0118 932 3088
FAX: 01993 815002
www.ridge.co.uk

Also at Oxford, Bristol, London and Leicester

DRG NO: 5014850 / 018_A001

REV:

FILE REFERENCE:

XREF FILE REFERENCE:

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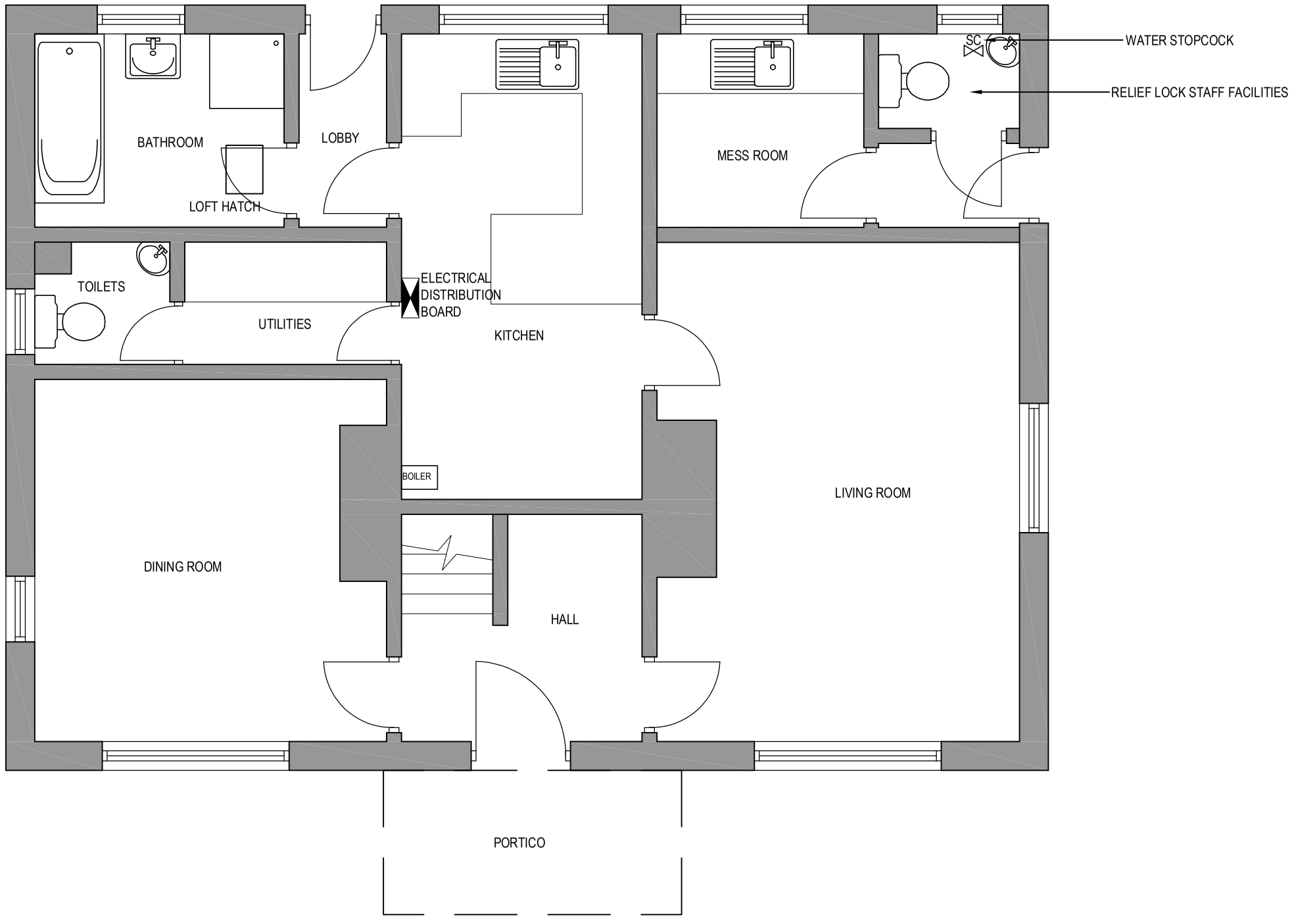

REF	DATE	REVISION	DRAWN	CHECKED

SCALE	DATE	DRAWN BY	CHECKED BY
1:50@A3	08/2021	HW	ES

DRAWING

Days Lock

Ground Floor Plan

PROJECT

Condition and PPM Survey

CLIENT

Environmental Agency

RIDGE

BEAUMONT HOUSE
59 HIGH STREET
THEALE
READING, RG7 5AL

TEL: 0118 932 3088
FAX: 01993 815002
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DRG NO: 5014850 / 018_A002

REV:

FILE REFERENCE:

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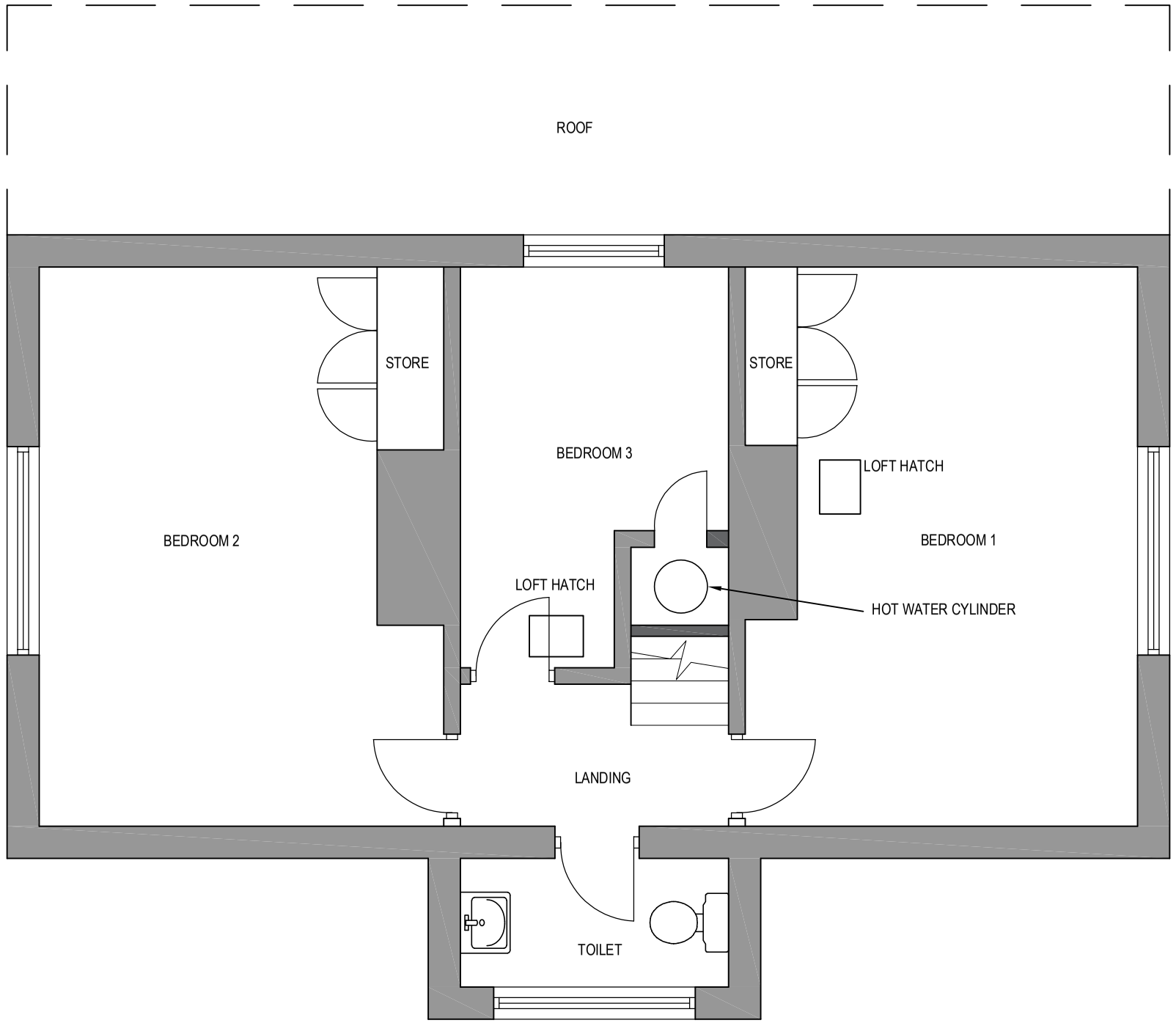


REF	DATE	REVISION	DRAWN	CHECKED

SCALE	DATE	DRAWN BY	CHECKED BY
1:50@A3	08/2021	HW	ES

DRAWING

Days Lock

First Floor Plan

PROJECT

Condition and PPM Survey

CLIENT

Environment Agency

RIDGE

BEAUMONT HOUSE
59 HIGH STREET
THEALE
READING, RG7 5AL

TEL: 0118 932 3088
FAX: 01993 815002
www.ridge.co.uk

Also at Oxford, Bristol, London and Leicester

DRG NO: 5014850 / 018_A003

REV:

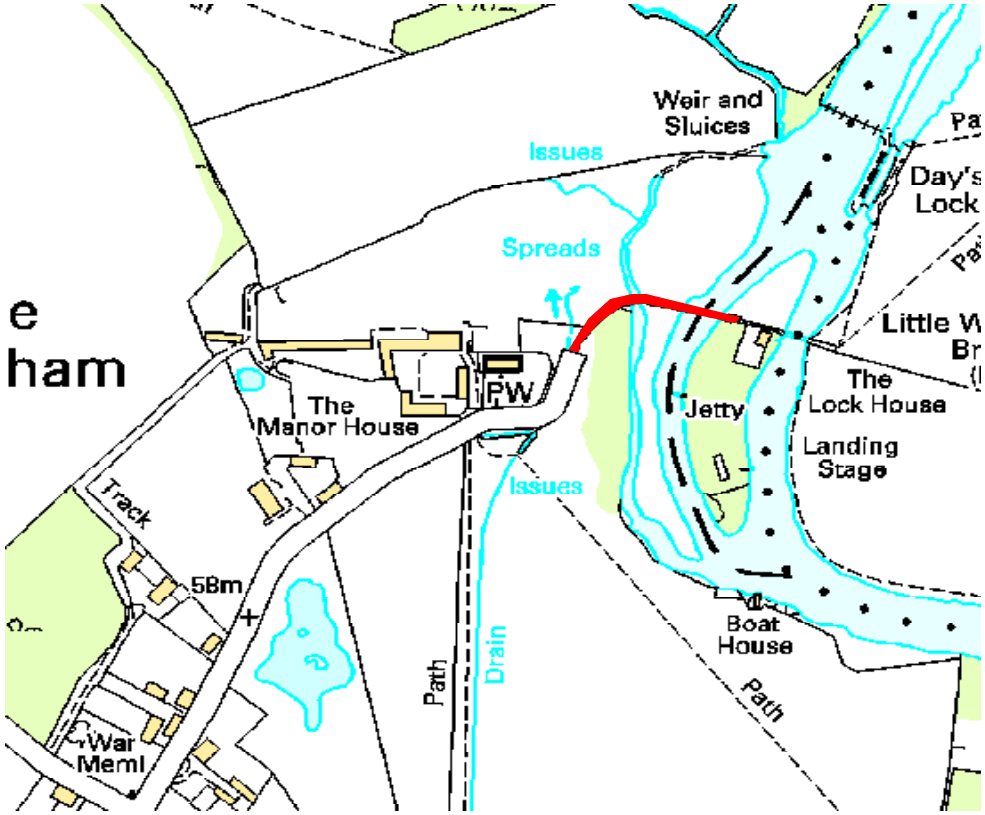
FILE REFERENCE:

XREF FILE REFERENCE:

C. LOCATION PLANS

Days Lock

Map Key:
Access Track Location



General Information

Location:	**Days Lock**
Lock Keeper:	**Steve Long**
Contact Number:	**01865 407768**

Access Track Information

Track Length: 36.8 meters
Post Code OX14 4RB **BNG** 456657, 193414
Parking Facilities: Parking at lock site
Other Information: Restricted access for HGVs.
Location: At **Berinsfield** roundabout take A415 toward **Abingdon**. Upon entering **Clifton Hampden** take left turn toward **Long Whittenham** village. At approach to village take left turn towards **Little Whitenham**. Turn left at first T-junction in **Little Whittenham**, lock site is located at end of road.

Access Restriction Information

Vehicular access via Little Wittenham only
Single security post restricts access. 16B key
Access on to lock and weir is unrestricted.

Track Ownership Information

Majority of access track is on public footpath.
Rest is owned by the Environment Agency
Land adjacent to lock site is owned by South Oxfordshire District Council.

D. PRE CONSTRUCTION HEALTH AND SAFETY INFORMATION

E. EA SAFETY, HEALTH AND ENVIRONMENT CODE OF PRACTICE

Environment Agency

Constructing a Better Environment

Safety, Health, Environment and Wellbeing (SHEW)

Code of Practice (CoP)

October 2017

Document status

This is a controlled document.

Issue Date	Issue No.	Author	Amendment details
July 2011	3	Simon Robinson	1st issue
March 2012	4	Simon Robinson	Sections 2, 3, 4 and 7 have been reformatted and revised.
August 2013	5	Simon Robinson	Minor amendments
October 2015	6	Simon Robinson	Amendments following increased take up
October 2017	7	Jonathan Jones	New format and numerous amendments

Issue authority

Author	Owner	Issue authority
Construction Safety, Health & Wellbeing Team	Construction Safety, Health & Wellbeing Team	Richard Houghton

Contents

Section One

1. Introduction

1.1 Scope

The Environment Agency, (EA) recognises the key role we play delivering construction activities as defined in the Construction (Design and Management) Regulations 2015, (CDM).

The EA accepts the roles of Client, and in some cases Principal Contractor, Contractor, Principal Designer and Designer under CDM 2015, and will take reasonable steps to ensure those appointed have the skills, knowledge and experience to carry out the work in a way that secures health and safety. We will also ensure whenever possible that all Principal Designers comply with their duties in regulations 11 and 12, and Principal Contractors comply with their duties in regulations 12 to 14.

This SHEW CoP has been developed in consultation with our supply chain partners to set out expected standards for Safety, Health, Environment and Wellbeing, (SHEW) that will be applied to all design and construction work we procure and deliver.

We will make suitable arrangements for managing a project and maintaining and reviewing these arrangements throughout, so the project is carried out in a way that manages the SHEW risks.

We act on the belief that all harm can be prevented, and working here will improve health and wellbeing.

E:Mission is our environmental plan (to 2020) and outlines the objectives and targets that we are aiming to achieve as part of this commitment.

Construction has been identified as a significant sustainability risk area for both our internal operations and our supply chain. Our suppliers will play a significant part in helping us to achieve our E:Mission and sustainability objectives.

We have an Environmental Management System (EMS) that is certified to ISO14001:2015 standards. As part of this, we take a full lifecycle approach to the identification and management of the significant environmental risks and opportunities in our procurement activities. We require all suppliers to embrace and adopt the same approach and reduce the environmental and social impact of this framework over its full lifecycle in addition to fully realising any benefits or opportunities that may exist. The supplier must ensure that impacts identified are reduced to benefit the environment and society, and that they are not passed on to another lifecycle stage. This includes considering and reducing those impacts that lie outside of the supplier's direct operation and impact on both the EA as a customer and on the supplier's supply chain.

This code of practice, together with specific references to safety, health, wellbeing and the environment in tender and other documents, if followed should ensure projects consistently achieve the highest, and where possible, industry leading standards above and beyond legal compliance.

This Code of Practice states the EA's:

a) Commitment to health, safety and the environment
b) Expectations of framework partners and other suppliers in respect of their health, safety, environmental, and welfare performance;
c) Arrangements for suppliers to report incidents and statistics used in benchmarking our overall performance.
d) Arrangements for assuring that the standards are being applied in practice, and defining any corrective actions required.

A working group is reviewing initiatives and improvements related to wellbeing at work, and the findings will be included in the updates to this document accordingly.

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1.2 Environment Agency HSW Values and Commitment

1.3 Environment Agency Environmental Commitment

1.4 EA SHE&Q Management Systems

Our management systems for quality and environment are accredited to ISO's 9001 and 14001 respectively, and our H&S management system aligns with the requirements of BS OHSAS 18801.

1.5 Health, Safety, Environment and Wellbeing Forums and Groups

Forums and Groups will be established where this is considered to be a benefit to the framework community for the sharing of information, innovation, best practice and learning to allow collective work to solve common problems and improve performance. Representatives from supply chain partners including Principal Contractors, Principal Designers and Designers will be invited to lead and attend framework meetings, along with representatives from the Area Operations teams and other EA colleagues involved in procuring and managing construction work.

1.6 Supplier Development Review

SHEW performance will feed into framework level supplier development. This will include compliance with the standards and expectations set out in this document.

The EA will review its own performance against compliance of the SHEW Code of Practice.

1.7 SHEW CoP Review

This document will be subject to a periodic review by the EA and supported by supply chain partners.

The EA reserves the right to amend this document, in consultation with representatives of our key framework partners, as and when appropriate.

Section Two

2. General

(Applicable to all projects/sites)

2.1 Considerate Constructors Scheme (CCS)

Environment Agency construction projects that have the potential to have a significant impact on the public, e.g. near schools, recreation areas, residential areas or are on site in excess of a calendar month will register with the Considerate Constructors Scheme. Projects that meet this criteria wishing to opt out of CCS will do so only with dispensation from Environment Agency's SHEW (Construction) Senior Business Partner. There must be reasonable grounds for exemption, (such as works within a restricted access site where there will be minimal impact on public and other businesses).

CCS posters must be displayed on all public site information boards and additional banners erected where they are clearly visible to the public.

Findings from CCS audits must be promptly copied into the project team and the Environment Agency's Senior Health, Safety and Wellbeing Business Partner.

2.2 Socially Aware and Community Conscious Employer

Contractors and Designers are expected to:

- Use local employment and local training initiatives where appropriate and practicable;
- Look for opportunities to enhance community benefits
- Encourage a diverse supply base that includes local Small and Medium Enterprises, social enterprises and the Voluntary in the Community Sector.
- Develop and integrate modern apprenticeship opportunities and encourage the consideration of diversity and equality in our decisions. Demonstrate compliance with the Equality Act 2010 through the work delivered. Projects and community engagement should be inclusive and accessible for all. The Environment Agency "Access for All Design Guidance" is available to support this approach.
- Adopt a policy of equal opportunities to encourage a diverse workforce;
- Offer training and development to all staff, including the client to meet individual, project and company needs.

2.3 Overarching Sustainability Requirements and behaviours

We expect our Suppliers to understand their supply chains and ensure that this approach is embedded throughout them. The Suppliers will ensure that they directly and through sub-contractors and other partners:

- Ensure that that all supplier staff working on our behalf are aware of and are trained and competent to deliver the sustainability requirements laid out in this schedule.
- Engage with us and the wider industry to share best practice, innovation and lesson learned; improve and develop best practice sustainability standards and support trials of innovative products and materials.
- Help achieve, and where possible exceed, our e:Mission and sustainability targets where they are relevant to this Framework. This includes any changes or amendments to these targets during the life of the contract.
- Work towards having a relevant Environment Management System (EMS) accredited by UKAS to the standard of ISO14001:2015 or equivalent within 2 years of contract award. A

staged approach to this standard will be acceptable for Small and Medium Enterprises (SMEs).

- Engage in, attend and implement training or events that you are invited to by the EA. This may include but is not limited to workshops, webinars, toolbox talks, audits and training. The Contractor may be invited to take part in our supplier development programme.
- Sign up to the Supply Chain Sustainability School
- Adopt a lifecycle approach to the identification and management of environmental and social risks;

2.4 Health Surveillance/Monitoring

Risk assessments (including Designer's) and method statements should have full regard for managing health risks associated with the work. For activities that pose a significant health risk, suitable control measures should be in place, and appropriate remedial actions identified.

Organisation arrangements should be in place for access to occupational health for surveillance and referrals related to work related medical issues. Health checks should be made available for direct employees, and should include audiometry, spirometry, HAVs assessment, etc. as appropriate and depending on the exposure to the health risks.

A health surveillance programme should be available to employees exposed to significant health hazards associated with their work activities, (vibration, noise, dust, asbestos, lead, COSHH substances, etc.).

For activities that pose a significant health risk suitable controls measure should be in place, and appropriate remedial action identified, (such as control of trigger times, PPE, RPE, etc.).

2.5 Occupational Health/Hygiene Promotion

A health promotion programme should be in place, (e.g. monthly heath awareness theme, participation in campaigns, active management of health issues on site, etc.).

Where appropriate occupational hygiene assessments will be in place to determine the nature and magnitude of exposure to health risks associated with the foreseeable work activities and substances present on sites.

2.6 Welfare

In addition to legislative welfare requirements, construction sites will have:

- Housekeeping to a high standard for all welfare facilities, (e.g. regular inspection and cleaning programme);
- A skin care safety board, (e.g. DEB or similar) complete with a 'protect, cleanse, restore' system on site;
- A separate sun barrier cream dispenser to at least factor 15 and at least 4 star UVA protection readily available at all times.

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2.7 Welfare on Short Duration or Transient Sites

A transient site/project, (construction or other work related activity) is either where short duration work, (e.g. up to one week) is carried out at one or many locations, or is of a longer duration carried out while moving over a continuous geographical area (e.g. linear grass cutting operations or embankment routine maintenance, etc.). Suitable arrangements for drinking water, hand cleaning, access to hot water and sun-cream (where relevant) should be established. Also, shelter/shade from the elements, be it wind, rain or sun, and this can be a structure or a vehicle.

Only if it is specified in the Construction Phase Plan would it be appropriate to make arrangements to use facilities provided by the owner of existing premises in which the work is being undertaken, local public facilities or the facilities of local businesses. Clear agreement should be made with the provider of the facilities; it should not be assumed that local commercial premises can be used without their agreement. Workers should be made aware of the agreed welfare arrangements and conditions to use the facilities and informed of their location.

In all cases the standards of CDM 2015 Schedule 2 must be provided or made available. Facilities must be:

- Readily accessible to the worksite, (e.g. within a 10-minute walk or drive);
- Open at all relevant times and be at no cost to the workers;
- Of an acceptable standard in terms of cleanliness, (e.g. regular cleaning programme established) and have hand-washing facilities.

2.8 Travel

The adverse effects on the environment related to travel can be significant. Every effort must be made to reduce the air quality and emissions impact caused from delivery and travel linked to construction work, including from the supply chain. It is anticipated that no flights will be required to be undertaken by suppliers in delivering construction work on behalf of the EA, but if this unavoidable then dispensation from the relevant EA framework manager is required.

2.9 Construction Phase Plan (CPP)

Where appointed, Principal Contractors (PC) must provide a CPP to the resident Principal Designer (PD) or CDM Advisor as applicable prior to the start of the construction phase. Sufficient time, (ideally 10 working days) must be allocated to review the suitability of the CPP, and advise the Client whether it is sufficiently developed to allow construction to commence. The principles of the Principal Designer SHE 'Stop - Go' Checklist should also be considered and implemented as appropriate throughout the design phase.

Work can only commence on site once the Client has given authorisation in writing.

2.10 Environmental Action Plan (EAP)

The EAP forms part of the contract documents issued to the contractor for adherence to during the construction works. IT summarises the actions required to be implemented, and sets out specific objectives and targets defining the way in which environmental risks need to be addressed. It also details roles and responsibilities of those involved in the proposal, and applies to temporary and permanent works.

The EAP is usually created by the National Environment Assessment Service (NEAS) when there are environmental aspects on or around the construction site. On smaller schemes the local Fisheries Biodiversity and Geomorphologyteam (FBG) will provide information. NEAS are responsible for agreeing any changes to the EAP and for signing off, or agreeing to the signing off, the actions. The contractor and Project Manager are responsible for advising NEAS on any changes to method statements or the planned construction work as these may result in changes to the EAP or additional consultation with statutory consultees. NEAS will assess the significance of these changes and determine the appropriate course of action.

The requirement for an EAP will depend on the size of the scheme and associated environmental risks, but it is the contractor's responsibility for ensuring the EAP commitments are delivered.

2.11 Materials and Equipment

Materials and equipment must be suitable for the task and used in accordance with manufacturer's/supplier's instructions, including testing and calibration as necessary. Adequate,

appropriate training must be provided to the user, including awareness of a relevant risk assessment as well as the provision of specific PPE as necessary.

Materials and equipment, when not in use, must be stored safely. Safe stacking methods should always be adopted and good access/egress must be maintained. Segregation and clear signage should be in place where necessary. Handling should be carried out by mechanical means where possible to avoid manual handling injuries. Loading and unloading activities should only be carried out by authorised personnel in compliance with LOLER requirements.

2.12 Plant – Operational Impact and Air Quality

All plant must also limit and minimise the emissions and air pollutant impacts of its use. This includes carbon, nitrogen oxide and particulate matter emissions. All plant provided for use in an area where legal local air emission standards are in place must as a minimum meet that standard. Low carbon fuel or alternative fuel options should also be considered.

In addition, all plant will be properly maintained to ensure continued operation at the most efficient levels.

We encourage innovation and technology that results in reduced emissions and air pollutants where this does not affect operational, safety or cost requirements.

2.13 Portable Appliances

All portable appliances on site should be included in a Portable Appliance Test (PAT) register. Appliances should be tested by a competent person in accordance with legislation and manufacturer's instruction. A label or sticker should be clearly visible on the appliance that identifies the last test date, and/or the next test due date.

2.14 Fire

Suitable safe systems of work must be implemented via risk assessment of hot work activities. As a minimum requirement, this would include awareness training of the action to take in an emergency. A Muster Point should be established for evacuation purposes, and fire extinguishers appropriate for the task must be kept readily available for all hot work activities. Each extinguisher must have an in-date service sticker attached, and there should be evidence the operatives know how to use them. A risk assessment should identify when appropriate flame retardant PPE, (coveralls, hi-vis jacket or vest, etc.) should be worn for hot work activities.

Site accommodation and welfare facilities must have provision for fire safety, (appropriate fire extinguishers in place, a robust PAT programme, etc.) and a documented procedure for the action to take in a fire emergency, including an emergency evacuation exercise schedule and the location of a suitable muster point. Everyone operating out of the facility must be made aware of the procedure. There should also be evidence that the fixed equipment has been tested for safety.

2.15 Management of Change

During the construction phase of a project, changes often occur for a variety of reasons. Our experience is that an inappropriate response to change can result in teams or individuals deviating from the agreed safe system of work. For example weather conditions, ground conditions, availability of plant and equipment, failure or faults in work equipment, availability of sufficient competent people, or the realisation that the planned and agreed safe system is not workable can generate changes. Often for good intention, teams or individuals decide to proceed with a work activity outside of agreed and documented risk assessments which significantly increases risk and can result in an accident if there is no effective review of the risks and control measures.

Recognising our experience from numerous safety critical incidents where agreed safe systems of work were not followed after a change, the EA fully supports and encourages work to be paused on site to allow for the risks to be re-assessed and alternative safe system of work to be documented, agreed and briefed.

All operatives must be briefed on the requirement to pause work and inform their supervisor/manager when there are changes that have an impact on their ability to follow a planned safe system of work, or if they are concerned that the activities are unsafe.

There may be a need to involve others in the review of risks and methods of work, such as the PD and/or the EA PM, etc. The work activity should only recommence when risks have been reassessed, appropriate system of work agreed and briefed to those undertaking the work. The relevant risk assessment and method statement must be updated and a record maintained.

The action to take when a significant change occurs must be emphasized during site induction and then re-enforced via regular briefings and toolbox talks. Line managers must encourage and support this culture through reacting positively when teams pause work and report issues with systems of work and changes to them.

2.15 Accident/Incident and Near Miss Notification and Review

All accidents and incidents must be reviewed to identify the possible root cause and actions to implement to prevent a recurrence. They must be reported in accordance with the criteria in Appendix **A** of this document:

Health and Safety incidents and near misses should be reported by following the guidance procedure in Appendix **A.1** of this document.

Environmental incidents and near misses should be reported by following the guidance procedure in Appendix **A.2** of this document.

Note: Environment Agency Area Operations teams will follow their own reporting procedures: http://intranet.ea.gov/peoplematters/help/62918.aspx

A copy of the EA incident and near miss reporting procedures shall be displayed in a prominent position in the site office and in the welfare accommodation, (Appendix A.1 and A.2). The reporting of Injuries, Diseases and Dangerous Occurrence Regulations, (RIDDOR) should be complied with when applicable.

All accidents and incidents must be reviewed to identify the root cause and actions to implement to prevent a recurrence. Initial reports for such incidents must be followed by a written report using the form in Appendix B, or a comparable form containing this information.

2.16 Materials Management/Resource Efficiency

Contractors and Designers will:

- Use Site Waste Management Plans effectively on all schemes.
- Take advantage of opportunities for standardisation, prefabrication, off-site manufacture and locally sourced materials. As prefabrication or off site manufacture can be a dichotomy with locally sourced materials.
- Encourage innovation of cost-effective low carbon solutions.
- Prioritise, as far as practicable, energy efficiency initiatives on site and in design, such as connection to the grid, insulated cabins, fuel efficient plant and vehicles, low carbon concrete.
- Use information available from the Environment Agency's Procurement Sustainability Risk Assessments for each project.
- Adopt a zero-waste approach.

- Specify, design, source and prioritise materials and products from recycled or renewable sources, and avoid virgin, and as far as practicable, finite resources.
- Use on-site borrow pits where appropriate to win material with subsequent habitat creation.
- Use the CL:AIRE register of materials to source material and to offer excess material
- Use available design tools to maximise resource efficiency, e.g. 'WRAP Designing out Waste Tool for Civils Projects' and the Construction Carbon Calculator during options design and construction stages to identify, investigate and implement carbon reduction opportunities.
- Comply with the Environment Agency's timber purchasing requirements for all timber including temporary works, and an EA business case is required for all tropical hardwood purchases
- Make the best use of available materials, minimise the volume of materials required, minimise wasted materials (i.e. adopt a zero waste principle and design for passive/efficient operation).
- Seek to use materials that can be sourced locally and reduce the carbon impact of transportation.
- Be compliant with relevant Government Buying Standards, providing evidence of compliance when requested. This is to include the use of environmentally preferable chemical products where they exist (e.g. low-VOC paints).

2.17 Waste

Site Waste Management Plans must be used effectively on all sites, and a zero approach to waste must be adopted.

The 'waste hierarchy' should be implemented through effective materials/Waste Management Plans to maximise opportunities for re-use/recycling, and to minimise waste sent to landfill. Re-use should be considered across the Framework and from within the wider supply chain.

2.18 Carbon Management

The reduction in carbon should be a serious consideration for all aspects of a construction project and suppliers must:

- Support delivery of the EA's E:mission targets on lifecycle carbon;
- Design, construct and operate assets, developing the lowest impact solutions over their full lifecycle;
- Create innovative low cost solutions that use natural resources wisely and reduce consumption by using materials efficiently across all supply chains to reduce waste, carbon and water use and consider and reduce the embodied impacts;
- Use ERIC, (carbon planning/accounting tool) to identify and deliver low carbon solutions;
- Prioritise, as far as practicable energy efficiency initiatives on site and in design, such as connection to the grid, insulated cabins, fuel efficient plant and vehicles, low carbon concrete.

2.19 Climate Change Risk and Adaption

Suppliers should consider the impact of extreme weather events and a changing climate on the delivery of construction work. When requested to, suppliers should be able to provide evidence of the impacts of climate resilience and how the impacts have been considered within their organisation, (i.e. supply chain premises and site operations). To help contractors assess this, a Business Resilience Health Check, (or similar applicable tool) may be used:
http://www.businessresiliencehealthcheck.co.uk/

Suppliers may be required to produce supply chain maps for key and/or vulnerable materials as part of this Framework, and may be selected to work with the Agency as part of its work to help understand where the risks currently are for its key and/or vulnerable materials.

2.20 Timber

Timber must be specified, sourced and purchased from legal and sustainable sources, with an audit trail from forest to end use in accordance with the Environment Agency's timber purchasing requirements. Recycled timber should be used ahead of virgin where appropriate.

All potential purchases of tropical hardwood regardless of size and value must receive EA internal approval via a business case authorised by the Sustainable Commercial Advisor and the Director of Operational Services FCRM before it can be purchased.

2.21 EA HS&E Compliance Assurance Team

HS&E audits of construction projects will be undertaken by a representative of the EA Construction Safety, Health, Environment & Wellbeing, (SHEW) Team. Findings will be communicated to those directly involved with the project, and remedial actions assigned as necessary. Actions from an audit must be closed out in accordance with the agreed timescale by the relevant Duty Holder.

Where an auditor deems an unsafe act or condition to be of significant concern, (e.g. serious injury potential) they will have the authority to stop the work activity and notify senior management. The work will not re-commence until safety to the satisfaction of the auditor can be assured.

Section Three

3. Principal Designer and Designers

Health, Safety and Environment

Health and Safety Specific

3.1 Construction (Design and Management) Regulations 2015 (CDM 2015)

3.1.1 Principal Designer (PD)

In liaison with the client, Principal Contractor, Designers and Contractors the Principal Designer has an important role in influencing how the risks to health, safety and the environment should be managed and incorporated into the wider management of a project. The Principal Designer's role involves effective communication and coordination of the work of others in the project team to ensure that significant and foreseeable risks are managed throughout the design process.

3.2 Competence

The competency of a PD and of Designers must meet the requirements set by the Consultants Health & Safety Forum. This includes: training, qualifications (e.g. relevant degree), experience, supervision, etc.

Designers must have a technical knowledge of the construction industry relevant to the project they are assigned to. Also, the understanding and skills to support the management and co-ordination of the pre-construction phase, including any design work carried out after construction begins.

Each designer shall ensure arrangements are in place to assess the competency of professional and supervisory staff against the requirements of their company's safety, health and environmental management systems. This condition applies to permanent and temporary works.

3.3 Design Risk Assessments and Buildability Statements

Designers need to address their design risks; site wide and task specific. They will ensure that all foreseeable risks are identified and those which cannot be eliminated are mitigated by design options to reduce the risks. Suitable controls must be identified by the designer for any residual risks. These residual risks or mitigation requiring specific controls, or which may be unusual or not immediately apparent to the contractor shall be clearly identified. As a minimum, this will involve effective use of SHE boxes on drawings.

Designers must ensure that occupational health issues are given due consideration, as well as safety issues. For any COSHH substances specified as part of a design a Material Safety Data Sheet, (MSDS) must be made available to identify the specific health risks the substance poses.

A task specific 'buildability' statement will be provided by each designer, that identifies the assumptions made in their design, the anticipated controls and demonstrates that the risks incurred by their design can be managed appropriately. This does not dictate methods of work to a contractor, only demonstrates that the designer has complied with their obligations.

Hazard maps must also be produced by the designer for WEM delivered works. Other contractors and designers for other frameworks will be expected to comply by end of December 2018.

Designers must liaise on a regular basis with the Principal Designer to discuss their design risk assessments, buildability statements and hazard maps.

Designers will ensure that:

a) Hazard information which may be relevant to safety during the construction phase, for example underground or overhead services, lifting operations, traffic management etc. are identified for inclusion in the pre-construction information. Also, historical information such as previous land uses, e.g. railway land may have residues of heavy metals, asbestos, etc.
b) Hazard information which may be relevant to health during the construction phase, for example processes creating noise, dust, vibration or use of COSHH substances, etc. are identified for inclusion in the pre-construction information. Also, historical site information such as burial sites, abattoirs, tanneries which may have chemicals and pathogens.
c) Hazard information which may be relevant to operators or maintainers of the asset, for example confined spaces, mechanical systems etc. are identified for inclusion in the health and safety file.
d) Hazard information which may be relevant to demolition or dismantling of the asset, for example structural principles, stored energy etc. are identified for inclusion in the health and safety file.
e) Detailed consideration in conjunction with the PC or Site Operators. for welfare requirements appropriate to the location and work activity.
f) Any changes in design including on-site changes will ensure a review of the design risks, and involve the Principal Designer in the review process before implementation.

3.4 Design criteria – Red Amber Green (RAG) List

Designers will use the Red Amber Green (RAG) list when considering options in both design and construction phases. Where work is to be contracted outside the framework, they will ensure that the organisations used also comply with the RAG list requirements.

Designs which require sign off for Amber or Red items need to be identified early and justification provided by the designer, in conjunction with the Principal Designer to allow sign off by the designated person.

The principles of the Principal Designer SHE 'Stop - Go' Checklist should also be considered and implemented as appropriate throughout the design phase.

3.5 Project/Public Interface

Designers with appropriate experience and/or qualifications, must assess and control any public safety risks which arise from their design, specifically for the operational asset once construction is complete.

3.6 Public Safety Risk Assessment (PSRA)

Where formally identified in consultation with the EA Senior Assessor, Designers are required to complete a PSRA for all new and existing EA assets, including assets for which the EA has assumed ownership where work is being proposed. The PSRA will be completed in accordance with the following procedure:

Designers are required to complete the PSRA in compliance with the format in OI733_11 and the Designers' PSRA Assessor will be provided with training by the EA, equivalent to the R79 PSRA training course. Designer's organisations are responsible for ensuring the competency of their design teams. For example, the EA operate a three-year competency review on their team of PSRA Assessors that includes a peer review by an Area Lead PSRA Assessor.

Completed PSRA deliverables are required:

1. At the end of appraisal, (included in any detailed design tender information).
2. At the end of detailed design, (prior to construction commencement) or
3. For design and build, completed prior to construction of any individual asset.

The Designer's PSRA Assessor is expected to liaise with the Local Area Lead PSRA Assessor, (via the senior user) during the design development and prior to any deliverable. The Designer PSRA is signed off by the EA Senior Assessor. When nearing completion of the work on the asset, the Local Area and Designer's PSRA Assessors should carry out a final review of the works to identify any additional requirements and instigate work prior to handover in conjunction with the Client. A copy of the final completed signed off PSRA should be held in the asset Health and Safety File.

Further information/guidance related to Public safety risk assessment of assets in the water environment - Recreation, water, and land access (Word, 352KB) can be found at: http://intranet.ea.gov/handlers/GetDocumentById.ashx?id=8648

3.7 Site Vehicles and Plant

Designers must identify in their designs the assumed access and egress routes to and from sites, with due consideration to the assumed plant to be used including deliveries of materials.

Designers must outline in their design on-site traffic management assumptions on drawings with regards to access points, compound locations, plant and vehicle movements, pedestrian movements, any space constraints, bridge weight capacities and ground bearing capacities, etc.

3.8 Ground Penetration

Designers' must be competent to recognise, manage and control the risks to avoid underground services. This would include training which provides sufficient awareness to inform decision making on application of the risk control hierarchy with adequate consideration for controlling risks by, design changes, service diversion and isolation. Competence can be demonstrated through completion of the 'Best Practice in Avoiding Underground Services' (BPAUS) training or equivalent training on 'Avoiding Services and Utility Plant'.

Designers must ensure that so far as reasonably practical scheme designs minimise the potential for contact with underground services, structures, obstructions, and features such as ephemeral streams which are none of the foregoing and are not archaeological, but can introduce unexpected flows, voids, instability, etc. Others may be caverns, swallow holes, or old workings/ mines. Reference should be made to CIRIA guides C681, (CIRIA C681) and C754, and to 'Dealing with munitions in marine sediments' published by The Crown Estate.

Designers must use adequate information regarding the presence of services and structures during design and construction, and only use justified assumptions. To inform decision making at design and appraisal, adequate information on the presence and location of underground services will be provided through application of PAS 128:2014, Specification for underground utility detection, verification and location. A desktop search of statutory utility supplier services information, (Survey Category Type D) must be available at Gateway 1, (or earlier as part of appraisal) to inform early decision making, by indicating the relative risk of options and, where practicable, elimination of those risks.

Service plans and drawings should be viewed beforehand, but these should not be considered as conclusive evidence that no services are in the excavation location, (e.g. service drawings rarely show connections to properties). An onsite walkover survey should also be undertaken. Prior to any intrusive construction work or investigation, (site investigation, archaeology, etc.) a specification and scope of on-site services must be prepared for those undertaking the investigation.

All projects will be subject to an on-site services survey compliant to PAS 128 stages A-D carried out by a competent supplier. This can be commissioned by framework suppliers or directly by the Environment Agency. Service searches and on-site surveys must be included in the project programme for completion in sufficient time for review prior to any intrusive works on site.

3.9 Working near Overhead Cables

Consideration must be given at the design phase to eliminate the potential to come into contact with overhead cables, in particular power lines, (e.g. consider diversion, isolation and/or the use of physical controls such as 'goal posts', etc.).

All overhead services crossing or adjacent to the works area and access routes should be clearly highlighted on Designer's hazard maps, so that the Principal Contractor is made aware if the potential exists.

Where applicable all designs must be prepared in accordance with the HSE Guidance Note GS6 – 'Avoiding danger from overhead power lines'.

3.10 Work at Height

When designs include temporary work platforms, access ways, excavations, etc., stair way systems will be prioritised over ladders.

When designing structures that require operation, use or maintenance at height, then the design must ensure documented application of the principles of prevention when determining preventative measures.

3.11 Temporary Works

Temporary works, (TW) are the parts of a construction project needed to enable the permanent works to be built. Usually the TW are removed after use (e.g. access scaffolds, props, shoring, excavation support, falsework and formwork, etc.). It is important that the same degree of care and attention is given to the design of the TW as to the design of the permanent works.

The TW designer should have TW training and experience appropriate to the associated hazards and risks. TW designs shall comply with requirements for design risk assessments, buildability statements and RAG List in the same manner as for permanent works. A temporary works schedule should be produced early in the project to identify information and surveys required.

TW designers must liaise on a regular basis with the Principal Designer to discuss their design risk assessments, buildability statements and RAG List. These would be combined as appropriate with permanent works documentation to avoid duplication.

Particular consideration should be given to:

- Stability requirements, lateral restraint and wind uplift on untied decking components;
- Designing TW that can be erected, inspected and dismantled safely, including how striking will be achieved;
- Selecting adequate foundations or providing information to ensure adequate foundations are used;
- Ensuring 'Working Drawings' and not 'Preliminary Drawings' are provided for the construction phase.
- Providing relevant information to the person fulfilling the role of Temporary Works Coordinator (TWC) and Temporary Works Supervisor (TWS), so that associated tasks can be completed safely

3.12 Working Close to or Over Water

Designers must consider implications of working close to or over water caused by their design, and apply principles of prevention to decisions to control risks. Designers must also take into consideration the requirements set out in Appendix D of this SHEW CoP re. 'Control Zone'.

Environment Specific

3.13 Designer Compliance

Designers will ensure:

a) They demonstrate application of principles of prevention in their design decision making process and compliance with the Environment Agency RAG List.
b) Delivery of the actions assigned to them in the Environmental Action Plan, (Environmental Risk Assessment) and will work with the Environmental Clerk of Works, (or others) to ensure this is done effectively and that actions are completed and signed off.
c) That environmentally sensitive areas are located and segregated to protect them from harm. These areas must be clearly marked on drawings, Hazard Maps and included in site rules.
d) They avoid impact to the environment by planning and managing their activities appropriately, and by maximising environmental opportunities.
e) Suitable information is provided on environmental risks associated with any design

3.14 Pollution Prevention Planning & Provision

Designers must engage with local EA Environment Officers to make use of their local knowledge and expertise in planning and undertaking works in or near to watercourses. They must also minimise in-channel works as far as practicable and implement suitable mitigation measures where required, considering active spawning seasons and other restrictions on the sites.

Designers must also consider the pollution risks associated with the design (e.g. in situ concrete/use of grout) as part of the designer's risk assessment process.

3.15 Resource Management

Designers must use:

- The EA carbon accounting tool ‘ERIC’ during design to reduce carbon of the proposed solution as per EA requirements. A copy will be sent to the contractor to update during construction.
- The CL:AIRE register of materials to help identify required and excess materials required for schemes.
- Site Waste Management Plan effectively, to identify the design actions that have reduced waste and the predicted waste types to help the Contractor plan for effective waste management.
- Design low carbon, resource and waste solutions, taking account the lifecycle of the scheme

Section Four

4. Principal Contractor and Contractors

Health, Safety and Environment

Health, Safety and Wellbeing Specific

4.1 Construction (Design and Management) Regulations 2015 (CDM 2015)

4.1.1 Principal Contractor (PC)

The PC is expected to take care in the selection, and supervision of subcontractors. Particular attention should be given to assessing the competence and experience of labour only subcontractor personnel, and of plant operators.

The PC must plan, manage and monitor the construction phase and coordinate matters relating to health and safety during the construction phase to ensure that, so far as is reasonably practicable, construction work is carried out without risks to health or safety.

The EA will hold the PC accountable for the performance of their supply chain in meeting these standards during the construction phase of the project.

4.2 Competence

4.2.1 Management/Supervision

Each Framework Partner and CDM duty holder is responsible for strictly ensuring the competence, including physical capability, of each organisation, team and individual to carry out their undertaking.

The EA also require the following minimum standards:
a) Anyone acting as:

- Site Manager and/or any person in control of the site;
- ECC Site Supervisors and ECC Project Managers;
- Area Operations team members supervising works.

Must hold as a minimum a current CITB Site Management Safety Training Scheme (SMSTS) or IOSH Managing Safely in Construction qualification.

Exceptions to this requirement require dispensation from the EA's SHEW (Construction) Senior Business Partner.

For projects involving site investigation, (SI) activities, Supervisors should have a recognised safety qualification such as the IOSH 'Safe Supervision of Geotechnical Sites' qualification or the CITB SSSTS.

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b) Everyone acting in the roles described above, must have attended CIRIA's 'Environmental Good Practice on Site' training or CITB 'Site Environmental Awareness Training Scheme within the last 5 years. Contractors may wish to provide comparable in-house environmental training. This must be approved by the Environment Agency's Senior Health, Safety and Wellbeing Business Partner

c) Supervisors will be expected to hold the CITB Site Supervisors Safety Training Scheme, (SSSTS) qualification and the CITB/CIRIA environmental awareness training or an approved equivalent training course, (e.g. contractor's own internal course).

d) Each PC shall ensure that arrangements are in place to assess the competency of professional and supervisory staff against the requirements of their own company's safety, health and environmental management systems.

e) All sites must have at least one First Aider qualified to 'Emergency First Aid at Work' as a minimum. Provision must be made to ensure there is suitable cover in the event of absence of the First Aider from site. This needs to be identified in the Construction Phase Plan for the project. CDM notifiable projects will have a suitable number of First Aid at Work trained individuals as identified in the First Aid need assessment.

4.2.2 Operative

Everyone working on site, including visiting workers, shall have suitable evidence of competency to fulfil their role, (e.g. Construction Skills Certification Scheme (CSCS) card, or equivalent affiliated registered scheme such as Register of Land Based Operatives (ROLO) Health & Safety and Environmental awareness course, etc.).

This rule does not apply in the case of:

- Infrequent visitors who have been inducted and are escorted at all times.
- Any person with a statutory right, for example the emergency services (Police, Ambulance, Fire) ,HSE Inspectors, or Environment Agency Officers undertaking their legal duties.

All plant operators shall be trained and certified to Lantra or CPCS standards. The National Plant Operators Registration Scheme (NPORS) standard is acceptable provided that QCF training can be demonstrated to achieve competent operator status.

Operatives carrying out vehicle marshal duties whilst on site must have attended a recognised vehicle marshal training course or an alternative approved by the Environment Agency's Senior Health, Safety and Wellbeing Business Partner.

If ground investigation works involve drilling, then whenever possible the competency requirements of BS EN 22475: Part 2 recommendations should be complied with. The British Drilling Association (BDA) provides information and clarification on the competency requirements of drilling operatives. For more information visit: www.britishdrillingassociation.co.uk

In particular Lead Drillers should be competent to the 'National Vocational Qualification', (NVQ) level 2 – 'Land Drilling', or equivalent, (RCF, QCF, etc.). They should also hold a 'Construction Skills Certification Scheme' (CSCS) Blue Skilled Worker card confirming 'Lead Driller' on the reverse of the card.

Support Operatives should be competent to the NVQ level 2 – 'Drilling Support Operative', or equivalent, (RCF, QCF, etc.). *Note: All Support Operatives should be registered onto a scheme and then be fully compliant within two years.*

4.3 Project/Public Interface

Risks to the public must be assessed and suitably managed on all sites. There must be specific management controls where construction work is adjacent to or affects public highways, footpaths and bridleways. This should include a specific risk assessment, and where appropriate compliance with conditions specified in the licence issued by the relevant highway authority. The EA's 'Hostile Sites Register' should also be referred to.

Every effort must be made during the planning and management of activities to reduce the impact on the public and the impression of a 'considerate constructor' should be given at all times. This includes reducing noise, dust and vehicle/plant movements as far as reasonable.

Construction teams should seek to engage with the community and respond promptly to complaints (relating to on and off-site activities), put things right and seek feedback.

4.4 Site Induction

All persons on an EA construction site must also receive a site health, safety and environmental, (HSE) induction. This must be carried out before being allowed to undertake a work activity. The induction should include site hazards and risks, site rules (such as PPE requirements), emergency action and the accident/incident reporting procedure. Inductions must also include information regarding the EA Core Values, SHEW Code of Practice, key items from the Environmental Action Plan (EAP) and what this means in respect of individual health, safety and environmental performance and behaviour.

Visitors to the site should be escorted at all times, and receive an HSE induction albeit not so detailed as the operatives' induction, (e.g. site rules, PPE requirements, action to take in an emergency, etc.).

4.5 Briefings and Toolbox Talks

A daily briefing should be given by supervision, (e.g. roles named at 4.2.1 as Management/ Supervision) to the workforce (including sub-contractors) prior to them commencing work activities, to ensure they have a good understanding of the tasks and associated hazards, risks and precautions. Further briefings should be carried out during the day if there are any significant changes that could affect the work activity, (update to risk assessment or method statement, changes in climate conditions, accident/incident on site, etc.). There needs to be due regard to transient/migrant labour and tailor the materials, briefing and understanding checks accordingly to ensure comprehension. A mechanism should be established to confirm a good understanding of the briefing by the audience, (e.g. a questions and answer session after the briefing). If there are any doubts, issues or concerns related to the briefing, then the works should be delayed until safety can be assured to an acceptable level.

A toolbox talk should be given by supervision to the workforce, (including sub-contractors) at regular intervals, (e.g. at least weekly for projects of more than 30 days). The talk should be on one or more health, safety, and/or environmental topics, and should be relevant to the work activities on site.

Records of briefings and toolbox talks should be maintained, and be readily available for audit purposes.

4.6 Site H&S Signage and Security

Appropriate H&S signs must be displayed at the site entrance to warn of the hazard potential and specific site requirements, such as PPE, speed limit, etc.

Key H&S documentation in accordance with legislative and company requirements, (e.g. H&S Law poster, F10 when applicable, Liability Insurance Certificates, emergency information, the EA's H&S and Environmental Incident Reporting Procedure posters, EA Core Values, etc.) should be displayed where it is clearly visible to the workforce, (e.g. site office and welfare area).

Effective security must be established around the project perimeter and work area, (e.g. double clipped Heras fencing) to prevent any unauthorised entry.

4.7 Housekeeping

A good standard of housekeeping must be established on site at the earliest opportunity and maintained throughout the project duration. Methods must be in place to collect rubbish/redundant materials, and suitable containers positioned in strategic places. Adequate, appropriate means for materials and waste storage, and where necessary segregation arrangements must be maintained in accordance with the Site Waste Management Plan, (SWMP).

4.8 Welfare – Shower Facilities

Shower facilities will be provided in line with legislative requirements, based on risk assessment. On projects employing more than 4 people and lasting more than 30 days the contractor will consult site staff whether they wish to have these facilities and record the fact. The inclusion of showers would need to be agreed before the Construction Phase Plan is submitted for review by the Principal Designer. Otherwise shower facilities need not be provided under this Code of Practice.

4.9 Personal Protective Equipment (PPE)

Everyone on an EA projects will wear as a minimum on site:

- Long trousers of a suitable kind
- Safety boots with steel toe cap and mid sole protection
- Appropriate head protection, (e.g. safety helmet)
- High visibility vest or jacket
- Suitable hand protection appropriate for the task.
- Suitable safety eye protection
  Note: In certain conditions, (e.g. when raining) eye protection may itself be considered hazardous, but as a minimum light eye protection must be worn on site unless a specific risk assessment identifies the conditions that remove the requirement.

The task risk assessments and site rules will determine any additional PPE requirements.

Suitable, well maintained life jackets must be provided for persons working or visiting within 3m of the vicinity of deep water, and personnel must be trained in their use, to ensure they are worn correctly.

Flame retardant clothing must be worn when excavating within 500 mm of a known live electric or gas main, unless this requirement is risk assessed out.

A sufficient quantity and variety of PPE, such as gloves, safety glasses, high visibility clothing, etc. must be available on site to ensure the immediate replacement of damaged or lost items, and to provide for visitors attending site.

4.10 Respiratory Protective Equipment

Contractors should avoid work activities that create dust or fumes. When this cannot be avoided, suitable control measures must be implemented to protect anyone near the exposure location. Suitable extraction/ventilation should be installed as necessary to reduce the level of exposure. When controls cannot eliminate the exposure potential, then Respiratory Protective Equipment, (RPE) must be provided. A risk assessment should be carried out to identify the type of RPE, (respirators or breathing apparatus) required and the findings recorded.

Adequate, appropriate training, (including fitting, use, maintenance, replacement and disposal) must be provided to the wearer of the RPE, and records maintained. Respirators or face masks must be to the FFP3 standard as a minimum, and the wearer must undergo face fit testing. This training should be repeated annually and if the wearer loses/gains significant weight and/or grows facial hair.

4.11 Risk Assessment and Method Statement

The PC is ultimately responsible for safety, health and environmental management on site during construction. Risk assessments and method statements must be produced in a style, language and level of detail suitable for the employees who will be working in accordance with them.

All operatives must be briefed on the hazards, risks and precautions related to their work activity. Further briefings should be carried out as the work progresses. In particular, when hazards and risks increase, such as the introduction to site of plant/machinery, other contracting companies, extreme weather conditions or on any significant change to the content of a risk assessment or method statement.

Contractors must include a schedule of risk assessments and method statements for significant activities during construction in or with their project Construction Phase Plans. The schedules must be updated when changes occur on site or new hazards/activities come to light. Revised schedules must be forwarded to the EA Project Manager, Principal Designer, the Site Supervisor and where relevant to the Environmental Clerk of Works for environmental risks

The EA Project Manager, or where appropriate the Site Supervisors or Environmental Clerk of Works acting on their behalf will periodically review arrangements for the identification and management of risk. They may comment upon and offer suggestions regarding risk assessments, method statements and permits, but the Principal Contractor retains ultimate responsibility and may choose to accept or not accept any suggestions made.

If reviewers are concerned that the documented systems will lead to undue risk, they will advise the contractor of their concerns and inform the EA Project Manager, Principal Designer, and Environment Agency Construction SHEW Team. Appropriate remedial action should be agreed and taken before the associated work activity takes place.

4.12 Method Statement Briefings

Operatives undertaking physical work will be briefed on the related method statement. Method statements will be debriefed (‘brief back’) to operatives before the second use of that method to ensure that staff have:

a) Understood the method statement.
b) Any defects in the method statement discovered during the first period of use can be raised and remedied before work continues.
c) Any changes to the method of works can be added to the method statement and re-briefed to the operatives before starting works.

4.13 Control of Substances Hazardous to Health, (COSHH)

COSHH covers substances that are hazardous to health and they can take many forms, including: chemicals, products containing chemicals, fumes, dusts, vapours, mists, nanotechnology, gases and asphyxiating gases, biological agents, and include banned substances such as Triclosan (floor adhesive).

All substances must be purchased from reputable suppliers, and be used, stored and disposed of in accordance with the supplier/manufacturer’s recommendation, and the Site Waste Management Plan (SWMP). Someone with the relevant competency should complete a COSHH assessment, using details taken from the substance’s Material Safety Data Sheet, (MSDS). Prior to use, the user of the substance should be made aware of the COSHH assessment and the MSDS, and both documents should be kept readily available at the job site.

4.14 Permits

A permit system should be implemented to control hazardous activities whenever there is a significant risk, (typical examples include Hot Work, Height Work, Confined Space, Excavations, Electrical, etc.). This would also include 'live' structures, e.g. a pumping station where equipment could start up automatically. The arrangements must be clear and properly implemented, so that all concerned fully understand its purpose, their roles and responsibilities, and the various related forms. Evidence should be available that those issuing a permit and those receiving a permit have received adequate, appropriate awareness training in the system (as a minimum a toolbox talk or briefing). The importance of adhering to the permit system must be communicated to all concerned, and permit violations must be avoided.

Specific named individuals responsible for issuing a permit must be identified in the Construction Phase Plan along with the procedure for obtaining and closing the permit.

4.15 Hand Arm Vibration (HAV)

Contractors must assess and identify measures to eliminate or reduce risks from exposure to HAV, so that employees are protected from risks to their health. Equipment with the potential to cause HAV must be provided by a reputable supplier. The exposure time limit for continuous use must be documented, and the user made fully aware of the hazard, risks and precautions. The time limitation details should be specified on a tag on the equipment, usually provided by the supplier. Reducing the time spent operating the equipment or finding an alternative method of doing the work should be considered in preference to providing additional, specific PPE.

4.16 Lone Working

The EA would not normally expect contractors, designers or visitors to undertake any lone working except where the risk involved is no greater than for a member of the public in a non-construction environment, (e.g. very low risk activities, whilst travelling to sites, inspecting completed works from a public access, etc.). The potential for lone working must be identified in a risk assessment and appropriate precautions implemented. In all instances where contractors elect to undertake lone working, suitable documented arrangements including monitoring and emergency arrangements must be in place.

4.17 Working close to or over water

The Principal Contractor and Contractors must ensure, where possible, they prevent personnel falling into water. If someone did fall into the water they must be prevented from drowning, and so a suitable means of recovery must be provided.

PPE appropriate to the activity and environment must be considered during the planning stage and identified in the associated risk assessment, e.g.:

- Lifejacket to BS EN 396
- Harness to BS EN 361
- Approved Buoyancy Aid (min. 8.2kg buoyancy)
- Safety head protection with chin strap
- Whistle or other means of giving audible alarm
- Buoyant safety lines/lifebuoys (where considered necessary)

For activities near the water's edge, especially for plant and equipment, a proportionate and site-specific assessment of ground conditions, particularly the bank, berm and channel side should be undertaken. The assessment should be recorded and include consideration of any signs of repair to these areas.

Pontoons and similar floating work platforms should be suitably buoyant and stable, and must be provided with edge protection or other arrangements sufficient to prevent persons working on the platform from falling into water. Pontoons and floating plant must be suitably sized to ensure that

no crush zones are created between plant and edge protection or other fixed objects. If this is not practicable then exclusion zones preventing access to crush zones must be implemented.

An emergency exercise/drill for water rescue should be carried out and recorded whenever the work activity includes a significant risk of drowning. These should be completed within the first week of site set up or other appropriate timescale identified and agreed in the Construction Phase Plan.

Principal Contractors must also take into consideration the requirements set out in Appendix C of this SHEW CoP re. 'Control Zone'.

4.18 Use of Mats Near Water

All contractors will ensure that where any item of ride on plant is to be used on mats within one machine width of a water body, stream or river the risk of sliding towards the water will be assessed, documented and controlled. This will include an assessment of the maximum allowable load, (tracked and wheeled).

Additional distance rules apply to the use of machine mats. When proposing to use machine mats consideration must be given to compliance with EA Operating Instruction 898-11(OI 898_11). Further information/guidance can be found at:
http://ams.ea.gov/ams_root/2011/851_900/898_11.pdf

4.19 Compressed Air Diving

Diving operations undertaken on behalf of the EA must meet certain minimum standards, these include:

- A minimum 5-person team;
- The use of surface supplied diving equipment;
- Compliance with the HSE ACoP L104 diving projects inland/inshore;
- Diving contractors to be full members of the Association of Diving Contractors (ADC);
- To be aware of and eliminate or effectively control the risks from differential pressure.

When planning a diving operation, or where it is reasonably foreseeable that a diving operation is likely to be required at some stage of a project, then representatives of the contractor and the EA will often have to coordinate arrangements to facilitate a safe dive. Formal isolation of flow control structures in particular is something which is often required and should be considered.

Most EA operational areas have a trained Diving Contract Coordinator, (DCC) and while their role is to assist their area colleagues, as a client under the Diving at Work Regulations 1997 they may be able to assist others. It should be stressed that their role is not to approve a contractor's diving RAMS, etc., but they often have local knowledge that could assist a diving contractor.

Planning and timing of diving operations is vitally important and adequate time should be allowed for all duty holders to discharge their responsibilities.

4.20 Ground Penetration

Ground penetration activities must be carried out in accordance with HSE guidance document HSG47 - 'Avoiding danger from underground services'.

Before breaking ground, checks must be carried out that there are no underground services, (electricity, gas, water, telecommunication, etc.) that will be damaged during the work activity. Service plans/drawings should be viewed beforehand, but these should not be considered as conclusive evidence that no services are in the excavation location.

PAS 128:2014 Specification for underground utility detection, verification and location must be applied to projects that foreseeably involve ground penetration. This is to provide a high degree of confidence of presence and position of underground services to inform the application of the risk management hierarchy to avoid service strikes. This can be commissioned by framework suppliers or directly by the EA. Service searches and on-site surveys must be included in the project programme for completion in sufficient time for review prior to any intrusive works on site.

PAS 128 Survey Category Type B requires geophysical detection, by electromagnetic and Ground Penetrating Radar surveys, to obtain greater positional accuracy for the services present. The requirement for GPR can be risk assessed out where this is deemed not reasonably practicable. This decision must be recorded and approved by the Client and Lead Designer.

Electromagnetic service detection equipment, such as Cable Avoidance Tools (CAT), can only be used by competent people. Competence can be demonstrated through completion of Energy & Utility Skills Register (EUSR) or equivalent approved training on utility avoidance (use of locating equipment and techniques). The effectiveness of the CAT should first be confirmed by use on known live services. CAT's must have a current calibration certificate and a data logging facility which records how the detection equipment was used. Monitoring of usage data must be done to confirm these important detection tools are being used appropriately and to provide an opportunity for management intervention where equipment is not utilised properly. A signal generator must always be used in conjunction with the CAT to allow detection of pot ended electricity cables and telemetry.

As specified in PAS 128 Survey Type A, on site verification through intrusive inspection must be undertaken to confirm the position of known services. This may be achieved through strategically positioned vacuum excavation, hand dug trial pitting or visual inspection within a utility chamber. When reasonably practicable construction teams should use soil picks and vacuum excavation, or other minimal risk techniques. Where this is not practicable hand-digging techniques should be applied using non-conductive or insulated tools.

Site managers and construction teams must be able to recognise and manage the risk to safely detect and avoid services. This includes capability to interpret utility drawings, use locating equipment and safe digging techniques. Competence can be demonstrated through completion of EUSR or equivalent approved training on safe digging techniques.

Flame retardant PPE, (in particular jacket and trousers) must be worn when excavating within 500 mm of a known live electric or gas main unless risk assessed out. If the wearing of flame retardant PPE is not deemed necessary, it should still be kept readily available in case the risk changes.

4.21 Working Near to Overhead Cables

All construction related activities near an overhead cable, in particular power lines, should be carried out in accordance with the HSE Guidance Note GS6 – 'Avoiding danger from overhead power lines'.

Consideration must be given at the design and construction phases to eliminate the potential to come into contact with overhead power lines, (e.g. diversion, isolation and/or the use of 'goal posts', etc.).

When 'goal posts' are implemented, they must have adequate clearance from the overhead services, and warning signs should be in place where vehicles and plant pass under or parallel to the services.

4.22 Working at Height

The use of working at height equipment must be captured on a risk assessment, and the hazards, risks and precautions shared with the user prior to use.

Mobile towers should only be erected and inspected by appropriately trained personnel.

Scaffold should be assembled to a generally recognised standard configuration, e.g. National Access and Scaffolding Confederation, (NASC) Technical Guidance TG20 for tube and fitting scaffolds. or similar guidance from manufacturers of system scaffolds.

A 'Scafftag', (plastic card inside a holder) should be placed in a prominent position on scaffold or mobile tower with relevant details, including the date of the last seven-day inspection. This is in addition to the scaffold inspection register which should be included in the CPP or other site documentation system.

When constructing temporary work platforms, access ways, excavations, etc. a stair way system will be prioritised over ladders.

Mobile Elevated Working Platform (MEWP) will only be sourced from a reputable supplier, and will be operated by someone with the CPCS or IPAF standard training and in accordance with manufacturer's instructions. An emergency rescue plan must be established for any MEWP operation.

Podium steps should be prioritised over 'A' frame steps or ladders whenever possible. They should be inspected by the user prior to use, and included in a regular documented inspection programme.

The use of a ladder on site will be avoided whenever possible. If this is unavoidable then the ladder must have a unique identification mark or 'Ladder Tag' that corresponds with a Ladder Register, and a regular documented ladder inspection programme implemented. While on a ladder, three points of contact must be maintained at all times by the user, and it should be secured, (e.g. footed) at the bottom and at the top, (e.g. tied). The ladder should extend at least one metre above the landing stage. Damaged ladders must be removed from the work site immediately.

4.23 Confined Space

A confined space is a place which is substantially enclosed (though not always entirely) and where serious injury can occur from hazardous substances or conditions within the space or nearby (e.g. oxygen deficient, toxic or explosive atmospheres, high temperatures, drowning or entrapment). Whenever possible entry into confined space should be avoided and only considered when all other options have been eliminated. Consideration must be given as to whether the work location and/or work environment constitutes a 'statutory' confined space. If it does, then the confined space activities must be carried out in accordance with the Confined Space Regulations and HSE guidance document INDG258: 'Safe Work in Confined Spaces'. There must also be evidence available that persons undertaking work in a confined space have the adequate training, equipment, supervision and authorization to enter.

4.24 Temporary Works

Temporary works, (TW) are the parts of a construction related project that are needed to enable the permanent works to be built. Usually the TW are removed after use, (e.g. access scaffolds, props, shoring, excavation support, falsework and formwork, etc.).

It is very important that the same degree of care and attention is given to the construction of the TW as to the construction of the permanent works. Any plant, materials or equipment used in the construction of TW must be installed in accordance with the manufacturer's instructions.

TW should be erected and dismantled only under the supervision of a competent person; often referred to as the 'Temporary Works Coordinator' (TWC). The TWC needs to coordinate the design, selection of equipment, appointment of contractors, supervision of work, check completion, and give authorisation to load and for removal.

Before erection of a TW a risk assessment should be carried out and a safe system of work developed. A method statement which includes how all the hazards are to be managed should be prepared. This should be read and understood by those doing the work. A permit to load should be issued before use/access to any TW platform. Regular safety checks on the TW should be carried out, and only 'Working Drawings' not 'Preliminary Drawings' should be used.

4.25 Site Plant and Equipment

All plant and equipment on site must comply with the Provision and Use of Work Equipment Regulations, and be:

- Sourced from a reputable supplier;
- Operated only by someone with adequate, appropriate training;
- Operated and maintained in accordance with manufacturer's instruction;

Plant must be inspected after delivery for any obvious defects. Particular attention should be made to the condition of hydraulic systems and hoses. Damaged hoses must be replaced, and all plant inspections must be recorded. All work equipment must be inspected by the user prior to use for any damage or wear and tear that may result in not being fit for purpose. A more formal inspection must be carried out at least weekly and must be recorded.

People and plant interface is of prime concern to the EA and construction teams must ensure adequate segregation between plant/vehicles and pedestrians. Appropriate arrangements must be in place to prevent persons being put at risk from operated plant. All task specific risk assessments must detail the safety control measures for keeping people safe when there is a legitimate need to work near plant. Whenever practicable pedestrian access to site must be by an alternative means other than via plant or vehicle access points. Pedestrian walkways, with appropriate barrier protection, should be established wherever reasonably practicable, (especially in the site office and compound areas).

In terms of plant and machinery movement, a hierarchy of control measures should be implemented. Whenever possible there should be a total segregation of plant and people. Where this is not possible, reversing should be eliminated or if this is not possible a Vehicle Marshall should be used. If drivers/operators lose sight of the Vehicle Marshal they must stop all movements immediately. Suitable communication arrangements must be implemented to ensure operators of plant are aware of any persons wishing to be in close proximity to the machine, (e.g. 'thumbs-up', 'say hello and wave goodbye').

All operatives, supervisors, and other persons on site (including Archaeological teams) must stay outside of the danger zone of excavators when they are operating, (see example diagram in Appendix D). Arrangements should be that a person is not allowed to encroach inside the RED zone area until the machine has been hydraulically isolated. Everyone is expected to follow these arrangements, or alternatives with similar controls. The Construction Plant Association, (www.cpa.uk.net) has published a guidance document titled 'Reducing Unintended Movement of Plant - and managing exposure to consequential risks'. Appendix E of this document provides examples of secondary isolation devices which provide further controls to manage the risk of the unintended movement of plant.

By the end of 2018, 360 excavators over 6T must be fitted with seat-belt interlock devices to isolate hydraulics when not engaged (this is to allow for a phased upgrade).

Dumpers of 4T or above used on the highway as part of our projects will have proximity sensors or an alternative means of eliminating blind spots fitted as standard. A Vehicle Collision Avoidance

System (VCAS) should be fitted unless there is a risk assessment which identifies that these controls are not necessary.

Recognising that a range of technology is now available for all construction plant, driver aids should be fitted to eliminate the potential for blind spots during operation, to ensure 360 visibility. Assessment and installation of upgrades must be completed by end 2019. In the interim period, alternative site risk management arrangements must be in place.

Seat belts, where fitted on plant/vehicles, must be worn all the times the vehicle is occupied, in particular when the ignition is switched on - without exception.

All plant operators shall be trained and certified to Lantra or CPCS standards. NPORS standard is acceptable provided that NVQ training can be demonstrated to achieve competent operator status.

4.26 Traffic Management Plan, (TMP)

Principal Contractors should ensure a Traffic Management Plan (TMP) is created for the project, unless the EA Project Manager or EA Construction Safety Health and Environment Business Partner agrees that one is not required.

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The TMP should identify the specific controls related to highway activities, and people/plant interface at the point of work. Consideration must also be given for the precautions required to protect pedestrians, including designated walkways on site and in the compound area.

The TMP should be referenced in the Construction Phase Plan prior to commencement of work on site, and then be readily available during construction. It should be regularly reviewed and updated whenever vehicle routes or movement conditions change. All associated operatives must be made aware of an updated TMP and records maintained.

4.27 Emergency Arrangements

When work is in progress, framework partners and CDM duty holders will ensure there are effective arrangements for managing safety, health or environmental emergency incidents. Emergency practice drills for fire, evacuation, water rescue, confined space rescue, harness recovery, etc. will be required within 4 weeks from commencement of work on site or other period as agreed in the Construction Phase Plan.

4.28 Health and Safety Related Accident/Incident

All accidents and incidents must be reported in accordance with the guidance in Appendix A, and process flow charts in Appendices A.1 and A.2 of this document. The Health and Safety Incident and Near Miss reporting procedure poster (Appendix A.1) shall be displayed in a prominent position in the site office and in the welfare accommodation.

Note: Environment Agency Area Operations teams will follow their own reporting procedures:
http://intranet.ea.gov/peoplematters/help/62918.aspx

All HSE reportable incidents, including fatalities, specified injuries, injuries resulting/or potential to result in over 7 days' absence, (RIDDOR requirement) dangerous occurrences and diseases, or incidents resulting in over £50k worth of property damage, must be reported by the Contractor at the earliest opportunity to the ECC Project Manager, Site Supervisor and Environment Agency Project Manager. The reporting of Injuries, Diseases and Dangerous Occurrence Regulations, (RIDDOR) should be complied with when appropriate.

All accidents and incidents must be investigated to identify the root cause and actions to implement to prevent a recurrence. Initial reports for such incidents must be followed by a written report using the form in Appendix B, or a comparable form containing this information. Contractors are required to investigate their own accidents and incidents; the depth and detail of the investigation must be proportionate to the severity or potential severity of the event. The accident investigation should consider the guidance contained in the HSE publication HSG 245, 'Investigating Accidents and Incidents'.

A final and comprehensive investigation report must be provided by the Contractor to the Environment Agency Project Manager, Construction SHEW Team, and where relevant the ECC PM, within 14 days. Any deviation from this must be reported to and agreed with the Environment Agency Project Manager and/or Senior Health, Safety and Wellbeing Business Partner.

Environment Specific

4.29 Environmental Compliance

Whilst undertaking their work activities contractors must:

a) Avoid adverse impact to the environment by planning and managing their activities appropriately and by maximising environmental opportunities.
b) Ensure inductions contain relevant site specific environmental information and rules.
c) Where relevant, contribute to the Environmental Impact Assessment (EIA) process as agreed with the Environment Agency Project Manager to minimise environmental damage through careful design and construction methodology, including protective or remedial actions where damage is unavoidable.
d) Deliver the actions assigned to them in the Environmental Action Plan, (Environmental Risk Assessment) and will work with the Environmental Clerk of Works, or others to ensure this is done effectively and that actions are completed and signed off.
e) Locate sensitive areas and segregate or protect them from harm. These areas must be clearly marked on drawings, site rules and included in the induction.
f) Not store materials under the canopy or within the sensitive root zone of trees and will erect tree protection fencing in areas of high risk, such as traffic routes.

Any changes to works that could increase environmental risk must be discussed with the EA Project Manager or Environmental Clerk of Works.

4.30 Resource Management

Contractors must:

- Take actions to reduce carbon through construction, including consideration of eco-cabins, dual generators and efficient plant.
- The CL:AIRE register of materials to help identify required and excess materials required for schemes.
- Utilise Site Waste Management Plans effectively on all schemes to record Duty of Care information as well as account for the waste removed.

Contractors will ensure all timber purchased, (permanent and temporary works) will comply with the EA timber purchasing requirements, and will ensure evidence of checks and provide relevant documentation upon request.

4.31 Pollution Prevention

Contractors must engage with local Environment Agency Environment Officers to make use of their local knowledge and expertise in planning and undertaking works in or near to water bodies, including watercourses, marine, estuaries, boreholes, groundwater, reservoirs, etc.

Before starting works, contractors must ensure site drainage, pathways, watercourses and groundwater source protection zones have been identified. This information, together with site specific measures to prevent spread of pollution, must be included in the site environmental emergency plan or site pack, (following Environment Agency Pollution Prevention Guidance Note 21). This will include actions to be taken in the event of silt, concrete and other chemical incidents where these risks exist.

Where risks such as grout/concrete and silt exist on the site formal site specific arrangements including mitigation checks, communications lines and emergency actions must be developed and operatives must be trained in these. This should include a suitable arrangement for wash out of equipment, taking best practice into account to avoid pollution. Actions to take in the event of changes that could occur on site should also be identified.

Particular attention should be given to the use of grout, cement and concrete works including a suitable arrangement for wash out of equipment, taking best practice into account to avoid pollution.

Suitable pollution prevention measures, (e.g. 'nappies') should be put in place under attachments, parked plant or static equipment, (e.g. generator, pump) whenever there is a risk of fluid leaks or spillages, especially during refuelling operations or within 10m of a watercourse.

Evidence must be readily available that operatives have received training in the use of spill kits within the previous six-month period. Where works are anticipated to last more than 30 days or are being carried out in an environmental sensitive site where the risk of spills have the potential for significant impact a mock exercise for each risk will be undertaken. This will be within 2 weeks of starting on site, unless otherwise defined in the CPP or Site Pack.

Spill kits must be appropriate to the risk and amount of fuel and oils on site, and located to be readily available should there be a spillage. Suitable PPE, (such as goggles and impermeable gauntlet gloves) must be included in the spill kits.

A suitable provision must be provided on site for hazardous waste, (e.g. following a spill) prior to its removal from site by a licensed carrier.

Where other risks exist, (e.g. silt, grout etc.) formal site specific arrangements including communications lines must be developed and operatives must be trained in these.

Contractors must minimise in-channel works as far as practicable and implement suitable mitigation measures where required, considering active spawning seasons and other restrictions on the sites.

Maintenance of site plant will be done in a way to minimise the environmental risk, with appropriate control measures in place.

All hydraulic oils supplied in plant under this Code of Practice must be defined as "Readily Biodegradable" and meet OECD 301B. Exceptions to this, for specialist plant must be justified and the pollution risk assessed and approved in writing by the Environment Agency appointed person discharging the Client's duties.

4.32 Invasive and Non-native species

Invasive non-native flora species, (e.g. Japanese Knotweed, Himalayan Balsam, Giant Hogweed, etc.) in the work locations will be identified and managed. Excavation of affected areas should not be undertaken without prior advice and guidance from EA.

Suppliers must:

- Ensure that all clothing/PPE, plant and equipment will comply with the Check, Clean, Dry approach specifically following the guidance for Biosecurity in the Field. The non-native species secretariat website has a variety of resources including identification sheets that may assist you.

    - **Check** - Check your plant, equipment and clothing for living organisms. Pay particular attention to areas that are damp or hard to inspect.
    - **Clean** - Clean and wash all plant, equipment, footwear and clothes thoroughly, preferably with hot water. If you do come across any organisms, leave them at the location where you found them.
    - **Dry** - Dry all plant, equipment and clothing - some species can live for many days in moist conditions. Make sure you don't transfer them elsewhere.

- Ensure soil and any medium that may contain damaging organisms is managed in accordance with Treatment and disposal of invasive non-native plants: RPS 178 - GOV.UK

The formidable American Signal Crayfish poses a massive threat to native species in rivers, lakes and ponds. Also '*Dikerogammarus villosus'* and '*Dikerogammarus haemobaphes'*, sometimes known as 'killer shrimps' are invasive non-native species. If either are identified at the work location EA management should be notified at the earliest opportunity for advice and guidance.

All sites will follow the relevant bio-security advice with site specific arrangements formally documented, briefed to staff and followed.

4.33 Environmental Incidents

The following explains the approach for all projects delivered by external contractors, (Environment Agency Area Operations teams will follow their own reporting procedures):

All environmental incidents and significant near misses must be reported to the Environment Agency Incident Hotline 0800 80 70 60 at the earliest opportunity, and then to the Environment Agency Project Manager, Construction SHE Team, and where relevant, the ECC Project Manager, Site Supervisor and Environment Agency NEAS Officer.

Environmental incidents and near misses should be reported by following the guidance procedure in Appendix A.2 of this document.

The Environmental Incident and Near Miss reporting procedure poster, (Appendix A.2) shall be displayed in a prominent position in the site office and in the welfare accommodation.

4.34 Contractor Health, Safety and Environmental Monitoring

For supplier delivered works the following requirements apply:

All projects lasting between 7 and 30 days will be inspected by the Contractor's own competent management staff and the findings recorded.

Projects lasting for 30 days or more must be inspected by the Contractor's own competent HS&E Advisor twice per calendar month, with at least one visit being for the purposes of an inspection which will be recorded.

Following each recorded inspection, and within four working days of the visit ,the HS&E Advisor's report will be provided to the following as appropriate:

- Environment Agency Project Manager
- Principal Designer
- ECC Project Manager

- Site Supervisor

Appendix A – Accident/Incident Reporting *(background information)*

1. All incidents identified below must be reported to the Environment Agency (EA) Project Manager and where relevant the ECC Project Manager at the first opportunity after the event:

   1.1 All HSE reportable incidents, (including fatalities) specified injuries, injuries resulting in over 7 day's absence, dangerous occurrences and diseases or include over £50k worth of property damage.

   1.2 All injuries or incidents, which are not reportable to the HSE, but:
   - Require medical treatment by a recognised medical practitioner or a nurse, or
   - In the case of people at work, result in an absence of up to 7 days, or
   - Result in £10k-50k property damage.

   1.3 Significant near misses. If a Contractor is unsure as to whether an incident is reportable to the EA the Contractor should consult with the EA Project Manager.

Note: Environment Agency Area Operations teams will follow their own reporting procedures: http://intranet.ea.gov/peoplematters/help/62918.aspx

Health and Safety incidents and near misses should be reported by following the guidance procedure in Appendix **A.1** of this document.

Environmental incidents and near misses should be reported by following the guidance procedure in Appendix **A.2** of this document.

2. Using the template in **Appendix B** of this document will ensure that all the information required in the first instance is provided to the EA. Contractors should use the template to provide as much information as possible, and can provide subsequent revisions of the template as more information becomes available.

3. Contractors are required to investigate their own accidents and incidents; the depth and detail of the investigation must be proportionate to the incident severity or potential severity.

   Investigation reports should reach the EA Project Manager by no later than 14 days following the accident or incident; any deviation from this must be reported to and agreed with the Project Manager and/or Construction Safety Health and Environment Manager.

Appendix A.1 – Health and Safety Incident and Near Miss Reporting

Safe and well

Environment Agency

Notice to contractors

Health and safety incident and near miss reporting procedure

What should I report?
ALL accidents, incidents and near misses, no matter how minor.

Why should I report it?
To learn lessons and prevent others from getting hurt by something similar and to reduce risk.

Accident, incident or near miss happens on site.

1

Report ALL incidents on site to:

[Insert rep name here]

Follow your internal procedures and legal duties for reporting under RIDDOR.

2

Call the Environment Agency project manager as soon as the incident has been dealt with:

[Project manager name]
[Contact number]

If the project manager is not available report it to another project manager or team leader.

3

Investigate the incident

You must perform the correct level of investigation for the incident and share lessons learned with the project team.

4

Provide a written report for all incidents and significant near misses to:

- **The Environment Agency project manager**
- **Jon Jones in the Health, Safety and Wellbeing Construction Team**

You must provide a written report within 14 days of the incident, unless otherwise agreed with the project manager.

Appendix A.2 – Environmental Incident and Near Miss Reporting

e:Mission

Notice to contractors

Environment Agency

Environmental incident and near miss reporting procedure

What is an environment incident?

- Damage to the natural environment
- Pollution
- Risks to wildlife
- Fish in distress

A near miss is a situation where any of the above **could** have happened.

Environmental incident occurs at or from the site.

Environmental near miss occurs at or from the site.

1

Call the Incident Hotline immediately

0800 80 70 60

Give the following information:

- Name and telephone number
- State that it related to Environment Agency
- Principal contractor's name
- Name of site/project, including name of watercourse
- Description of incident
  - Date/time first noticed
  - Pollutant details
  - How serious is it?
- Ask for a reference number
- For contractor incidents inform gary.haley@environment-agency.gov.uk

2

Inform the Environment Agency project manager, giving full details of what's happened

[Project manager name]
[Contact number]

Review the incident and provide a written report within 14 days to the Environment Agency project manager and Health, Safety and Wellbeing Construction Team. Include the hydraulic hose form if relevant.

Appendix B – Accident/Incident Information Required

Project Title & Address of site			
Name of main contractor or PC		**Name(s) of injured**	
Date of incident		**Employer of the injured person(s)**	
Time of incident		**Who were they?** *(contractor, member of the public, etc.)*	
Reported to the EA PM by		**Date and time**	
Injury/Incident details			

		✓or **n/a**	**Type/Comment**
Estimated Severity *(Check with EA PM for definitions)*	HSE Reportable		
	Medical Attention Required *(more than first aid)*		
	Near Miss *(serious or serious potential outcome)*		
	Environmental Incident		NIRS Ref:

Part and site of body injured or Environment affected		**Type of injury or DO classification**	
Immediate cause of injury			

Investigation details			
Who is undertaking the investigation?	Name: Title: Contact No.:	**When will the investigation report be provided to the EA PM?**	Incident facts confirmed: Interim report: *(if applicable)* Final report:

Appendix C – Plant Working Near Water Control Zone

Why do we need a control zone?

We have had two fatalities linked directly to plant entering the watercourse. We have had several significant near misses where plant has slipped into a watercourse when undertaking maintenance work. It is important to ensure we have robust controls when working in this high-risk area.

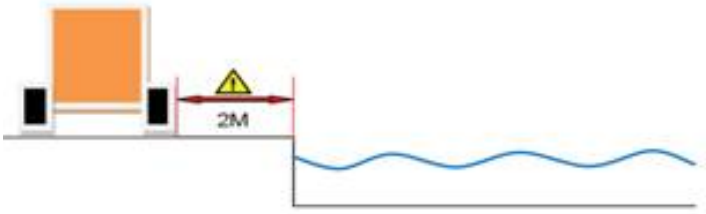
What is the Control Zone?

The control zone is an area within which plant may operate, but where additional controls are required. Typically, it is a strip of land measured horizontally from the top of the bank away from the watercourse, (see example diagrams below). It should be a minimum of 2m, but if ground conditions are poor or change it may be necessary to have a wider control zone.

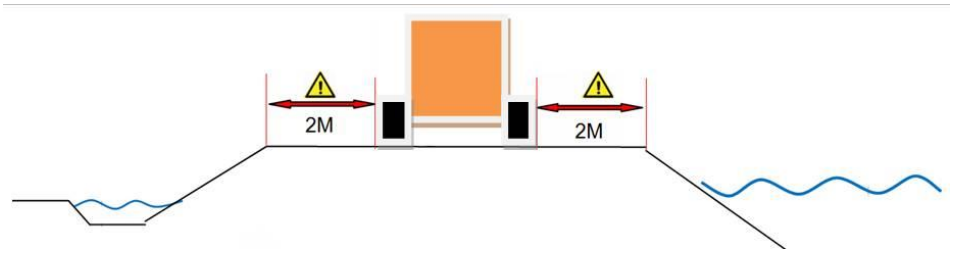
Additional controls include:

- Documented assessment of ground conditions;
- Ensuring the machine chosen is the best possible option;
- RAMS with specific control measures/Safe System of Work.

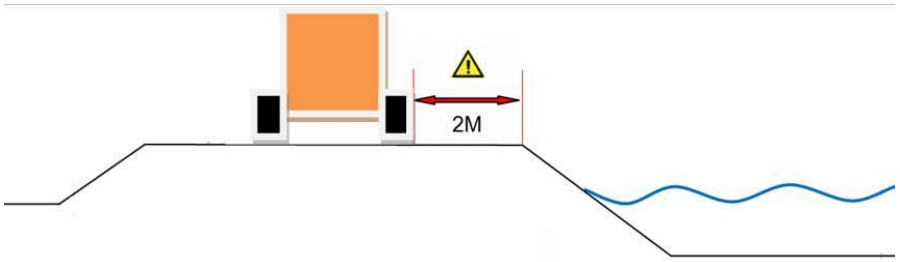
Example 1



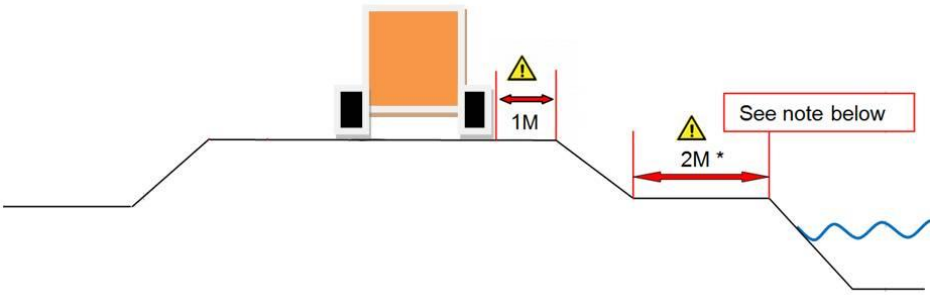
Example 2



Example 3



Example 4



Example Note

When ride on plant is operated on embankments adjacent to water where there is a berm between the work area and the water, consideration must be given to the width of the berm, the height of the bank and the size and weight of the plant to be used. If the berm is less than 2m wide, the control zone on the embankment must be adopted as per example 2.

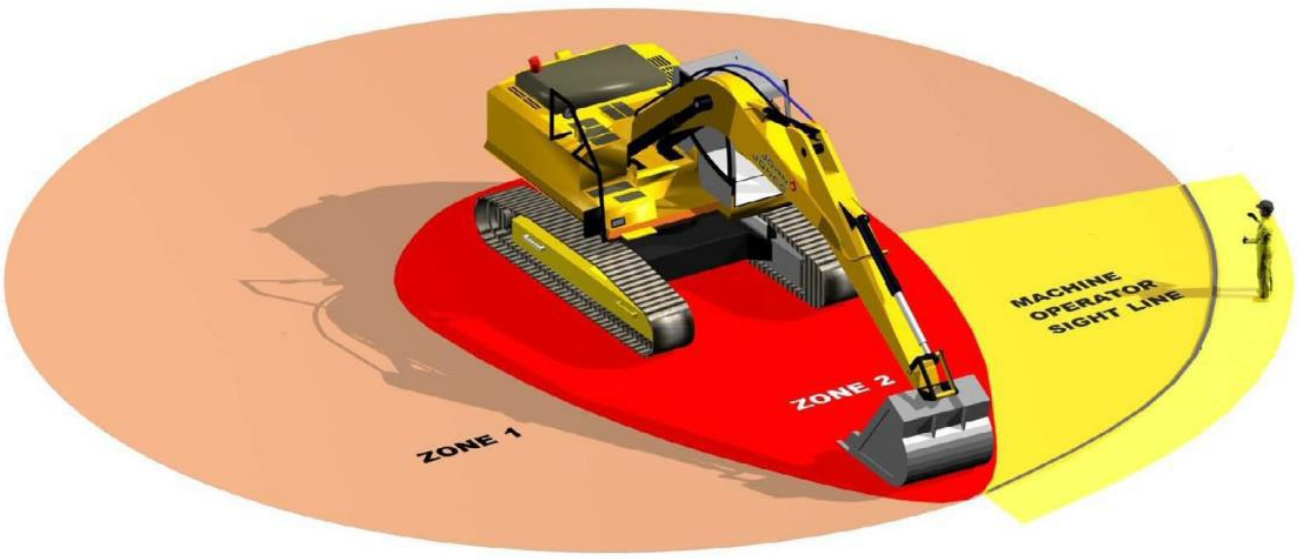
Appendix D – Plant Operation Safe Zone

As a general rule, there should be no one in the plant operating area unless they are authorised to be there.

The planning process should ensure that each item of plant has a designated 'Plant Safe Zone' as shown in the example below, *(courtesy of Highways England).* The aim of a safe zone is to ensure that persons in the vicinity of plant can identify the zones which should not be entered unless the machine's power source is isolated (**Zone 2**) and those which may be entered once the plant operator has indicated that it is safe to do so
(**Zone 1**).

The dimensions and positions of the zones will be decided by individual risk assessment and will vary with the type, size, reach and number of machines operating within a given area. Account should be taken of attachments and long loads.

Plant Safe Zone example



Appendix E – Reducing Unintended Movement of Plant

Care should be taken in the selection of additional measures to prevent unintended movement of plant, as not all guarantee success; some may only reduce the probability of occurrence.

The following provides examples of what should be considered when operating plant in the vicinity of people:

Operator Clothing
Plant operators should be provided with short 'bomber-style' jackets with elasticated cuffs to reduce the risk of coat skirts and cuffs becoming entangled with controls.

White Noise/Audible Movement Alarm
As soon as the item of plant starts moving, an audible alarm sounds which alerts all persons in the area that the machine is moving and that they are potentially in the danger zone.

Reversing Camera
Provides the operator with an image of the area behind the machine to avoid collisions with people and other machines when reversing.

Quick Hitch Attachment/Detachment Alarm
An alarm mounted on the exterior of the machine sounds when the operator is either attaching or detaching a bucket or attachment to the quick hitch. This system alerts anyone in the potential danger zone of what is happening.

Quick Hitch Coupler Alert Safety System
A console in the cab guides the operator step-by-step through every stage of a bucket detachment or attachment in line with the manufacturer's specific procedure. This prevents the operator taking short cuts when carrying out this task and also prompts the operator to carry out the required safety checks.

Secondary Isolation Devices
Additional to the control isolating, (dead man) lever and help to prevent operators from making inadvertent movements of their machine whilst getting in or out of the cab, even with the isolating lever placed in the engaged position. Examples of such devices are:

- **Seat belt monitoring**

The machine's systems do not become operational until the seatbelt is fastened. A green beacon mounted on the outside of the when the isolating lever is engaged and the seat belt fastened.

- **Enabling control**

Another device on the market operates over three safety levels:
1. The operator is required to fasten his lap-belt - preferably a high visibility seatbelt which can be easily seen by supervisors/ site managers;
2. Safety lever required to be in the active position, preventing the operator from leaving their cab;
3. Additional button fitted in the cab and once the first two requirements have been successfully completed, will illuminate allowing operator to press the button and activate the machine's hydraulic system. This allows the machine to become operational.

- **Operator presence sensing**

A new system - currently under development - senses that the operator is sitting in the seat and isolates the machine controls if they attempt to stand up.

Proximity Sensing Systems
Senses the presence of people in the vicinity of the machine and alerts the machine operator if a pre-set zone is breached. This system relies on people wearing transponder units and will not sense the presence of casual bystanders who are not wearing transponder units.

Handheld Remote Cut-off
Allows a banksman or slinger/signaller with a hand-held wireless control to stop the machine remotely. Once the control has been activated and the machine stopped, it cannot be restarted until the control is reset.

(Taken from the Construction Plant-hire Association Reference document No. CPA 1701 www.cpa.uk.net)

Appendix F - The NCPMS Project Health and Safety Timeline

The H&S timeline in the Gateway Chart in Appendix F.1 has been developed as a guide for ncpms project delivery. It signposts the main Health and Safety considerations, inputs and products against the various stages of project delivery.

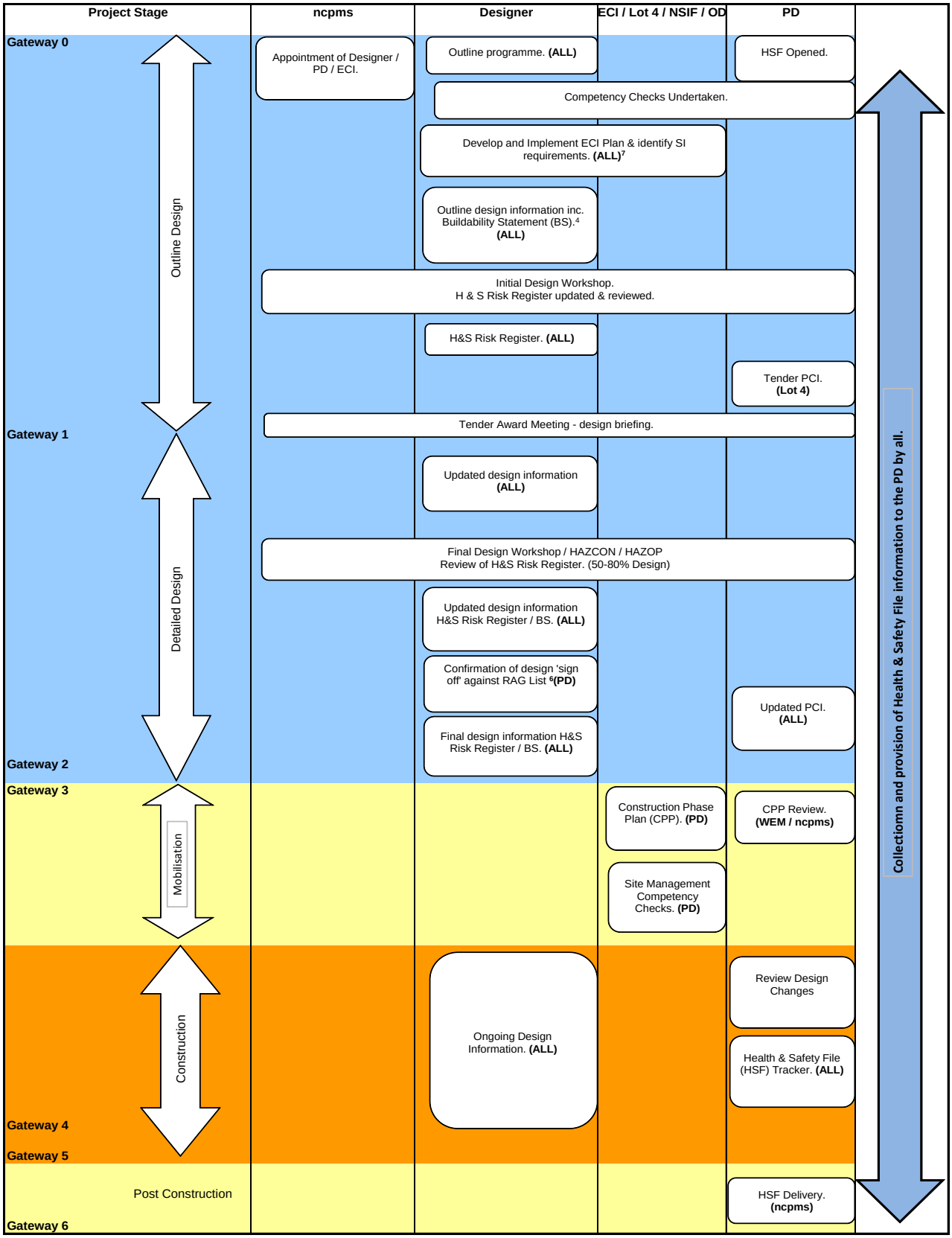
Using the gateway milestones as reference points it identifies the parties responsible for undertaking certain H&S activities, and can be used as a guide during the planning and execution of projects. It is not meant to be a comprehensive guide to H&S process, but aims to be a simple overview that helps to bring more consistency into the planning and delivery of H&S inputs during a projects lifecycle.

Notes for using the timeline:

1. Parties shown in '**BOLD**' are to receive documents produced.
2. The above focuses on the relative order of activities rather than relative timescales.
3. Tender documents to include H&S Risk Register.
4. Reference required at this stage to RAG/Buildability statement reference document.
5. The above milestones and actions provide a baseline for projects to work from, with the process being tailored by the project team to reflect the level of significant hazards and the risks associated to those hazards.
6. The design should be checked against the RAG list periodically during the design phase.
7. CDM requirements for the SI process are to be discussed with the Principal Designer (PD).

Reminder:
It is a duty under CDM to allow sufficient time to plan and programme construction works. Should a need arise to fast track any activities then due consideration must be made to manage any associated increase in risk**.**

Appendix F.1 – Gateway Chart



F. HEALTH AND SAFETY REQUIREMENTS

Compliance Checklist

Project/Site:.....

Item No.	SHEW CoP ref.	Requirement	✓ X N/A	Comment/Action
2. General *(applicable to all projects/sites)*				
1	2.1	Potential to impact on public OR on site in excess of 1 month will register with 'Considerate Constructors Scheme', (CCS). Display posters on public information boards, erect banners, (opt out option possible).		
2	2.2	Employ local labour and training where practicable, implementation of policy of equal opportunities and diversity, and offer training and development to meet needs.		
3	2.3	Ensure staff are aware of, trained and competent to deliver the sustainability requirements laid out in this schedule, (e.g. include in within induction).		
4	2.3	Achieve an Environment Management System (EMS) accredited to the standard of ISO14001:2015 or equivalent within 2 years of contract award.		
5	2.3	Sign up to the Supply Chain Sustainability School.		
6	2.4	Access to occupational health for surveillance and referral related to work related medical issues, and a health monitoring programme, (e.g. vibration, noise, dust, asbestos, lead, COSHH substances, etc.) and health surveillance established for direct employees.		
7	2.5	An occupational health/hygiene promotion programme should be in place, (e.g. monthly heath awareness theme, participation in campaigns, active management of health issues on site, etc.).		
8	2.6	In addition to legislative welfare requirements construction sites will have: - Housekeeping of welfare facilities to the highest standards. - Skin care safety board, (DEB or similar) and a separate sun cream dispenser at least factor 15.		
9	2.7	Welfare on short duration or transient sites: CDM 2015 Schedule 2 standard. Facilities readily accessible to work site, (e.g. max. 5-minute walk or drive) open at all times, no cost to workforce, a high standard of cleanliness, have hand-washing facilities, and details contained in the Construction Phase Plan.		
10	2.8	Every effort made to reduce air quality and emissions impact caused from delivery and travel linked to construction work, including from the supply chain.		
11	2.9	PC must provide Construction Phase Plan to the PD at least 10 days prior to construction start, so PD can assess its acceptability in line with 'Stop/Go' process. Client authorises when site work can commence.		
12	2.10	The need for an EAP will depend on the size of the scheme and associated environmental risks, but it is the contractor's responsibility for ensuring the EAP commitments are delivered.		
13	2.11	Materials/equipment right for the task, appropriate training provided and used correctly.		
14	2.11	Materials/equipment stored safely, segregation and signage as appropriate, and compliance with LOLER as necessary.		
15	2.12	All plant must also limit and minimise the emissions and air pollutant impacts of its use, and be properly maintained to ensure continued operation at the most efficient levels.		
16	2.13	Portable appliances included in a Portable Appliance Test, (PAT) register, and a label or sticker clearly visible on the appliance that identifies the last test date, and/or the next test due date.		

Item No.	SHEW CoP ref.	Requirement	✓ X N/A	Comment/Action
17	2.14	Safe systems of work via risk assessment for hot work activities, emergency awareness, Muster Point, fire extinguishers in-date service sticker, flame retardant PPE, and flammable materials stored correctly.		
18	2.15	All operatives should be briefed on the requirement to stop work and inform their supervisor/manager when there are changes to the planned safe system of work, or if they are concerned that the activities are unsafe, (e.g. include within induction).		
19	2.16	All accidents and incidents must be reported in accordance with the EA accident/incident flow charts for H&S and for Environmental, which should also be displayed in a prominent position in the site office and in the welfare accommodation. (see Appendix A.1 and A.2)		
20	2.17	Management/Resource Efficiency and Carbon Management, incl. Site Waste Management Plans effective on all schemes, Adopt a zero waste approach, Use the CL:AIRE register of materials, Construction Carbon Calculator, to identify, investigate and implement carbon reduction opportunities, and Comply with the UK Government timber procurement policy for all timber.		
21	2.18	Site Waste Management Plans must be used effectively on all sites, and re-use should be considered whenever possible.		
22	2.19	Understand and support delivery of the EA's E:mission targets on lifecycle carbon.		
23	2.20	Use a 'Business Resilience Health Check', (or similar applicable tool) to consider the impact of extreme weather events and a changing climate on the delivery of construction work.		
24	2.21	Timber must be specified, sourced and purchased from legal and sustainable sources, with an audit trail from forest to end use in accordance with the Environment Agency's timber purchasing requirements.		
25	2.22	Actions from EA Construction Safety, Health, Environment & Wellbeing, (SHEW) Team audits must be closed out in accordance with the agreed timescale.		

3. Principal Designer and Designers

26	3.1	The Principal Designer's role involves coordinating the work of others in the project team to ensure that significant and foreseeable risks are managed throughout the design process.		
27	3.2	Designers must have a technical knowledge relevant to the project they are assigned to. Also, the understanding and skills to support the management and co-ordination of the pre-construction phase, including any design work carried out after construction begins.		
28	3.3	Design Risk Assessments and Buildability Statements should be established.		
29	3.3	SHE boxes should be included on drawings and should be effective.		
30	3.3	Any changes in design, including on-site changes will ensure a review of the design risks, and involve the Principal Designer.		
31	3.4	Design criteria – Designers will use Red Amber Green (RAG) list in design and construction phases.		

Item No.	SHEW CoP ref.	Requirement	✓ X N/A	Comment/Action
32	3.5	Assess Project/Public safety risk, especially for after construction.		
33	3.6	Complete a Public Safety Risk Assessment, (PSRA) for all new and existing EA assets, and liaise with Local Area Lead PSRA Assessor.		
34	3.7	Identify in designs the assumed access and egress routes, and traffic management for vehicles and plant.		
35	3.8	Minimise potential for contact with underground services, structures, obstructions and unexploded ordnance, (UXO), utilizing service plans/drawings and only justified assumptions.		
36	3.8	Search of statutory utility supplier services information, (Survey Category Type D) must be available at Gateway, also an onsite walkover survey should also be undertaken.		
37	3.9	Eliminate potential for contact with overhead cables, in particular power lines.		
38	3.10	Document application of principles of prevention for work at height, and stair way systems prioritised over ladders.		
39	3.11	Temporary Works, (TW) Designer should have TW training and experience appropriate to the associated hazards and risks, and liaise with the PD.		
40	3.12	Consider implications of working close to or over water, and requirements set out in Appendix C of the SHEW CoP re. 'Control Zone'.		
41	3.13	Compliance with EA RAG List, deliver actions in the Env. Action Plan, locate and protect sensitive areas, avoid impact by planning and maximise environmental opportunities.		
42	3.14	Engage with local EA Environment Officers, minimize in-channel works, and consider the pollution risks as part of the designer's risk assessment process.		
43	3.15	Use EA carbon accounting tool 'ERIC', CL:AIRE register of materials, and Site Waste Management Plan effectively.		

4. Principal Contractor and Contractors

44	4.1.1	PC to take particular care in the selection, and supervision of subcontractors, plan, manage and monitor the construction phase, and be accountable for the performance of their supply chain.		
45	4.2.1	Site Manager and/or Site Supervisor Foreman or any person in control of the site, ECC Site Supervisors and ECC Project Managers, and Area Operations team members supervising works must hold current CITB Site Management Safety Training Scheme (SMSTS) or IOSH Managing Safely in Construction qualification.		
46	4.2.1	3 day IOSH Safety Supervisors qualification in Site Investigation, (SI) when only one contractor on site and the SI work is less than 4 weeks' duration.		
47	4.2.1	Roles above must have attended CIRIA's 'Environment Good Practice on Site' training or CITB 'Site Environment Awareness Training Scheme' within last 5 years.		
48	4.2.1	Supervisors other than those above should hold CITB Site Supervisors Safety Training Scheme, (SSSTS) qualification and the CITB/CIRIA environmental awareness training or approved equivalent qualification.		

Compliance Checklist

Project/Site:……..

Item No.	SHEW CoP ref.	Requirement	✓ X N/A	Comment/Action
49	4.2.1	Arrangements should be in place to assess the competency of professional and supervisory staff.		
50	4.2.1	All sites must have at least one First Aider qualified to 'Emergency First Aid At Work' as a minimum, and arrangements for suitable cover in the event of absence of the First Aider from site recorded in the Construction Phase Plan.		
51	4.2.2	Everyone working on site, including visiting workers shall have suitable evidence of competency to fulfil their role, (Construction Skills Certification Scheme, (CSCS) card or equivalent).		
52	4.2.2	All plant operators should be trained and certificated to Lantra or CPCS standards.		
53	4.2.2	Vehicle Marshals must have attended a recognised vehicle marshal training course or one approved by the EA's Senior HS&W Business Partner.		
54	4.2.2	For GI drilling activities Lead Drillers' should be competent to NVQ level 2 – 'Land Drilling', or equivalent, (RCF, QCF, etc.) and have a CSCS Blue card confirming 'Lead Driller'.		
55	4.2.2	Support Operatives should be competent to the NVQ level 2 – 'Drilling Support Operative', or equivalent, (RCF, QCF, etc.). *Note: Support Operatives should be registered onto a scheme by July 2018 and fully compliant within two years of registration.*		
56	4.3	Risks to the public must be risk assessed and suitably managed on all sites.		
57	4.3	Construction teams should seek to engage with the community, and respond promptly to complaints.		
58	4.4	All persons entering an EA construction site must receive a site HS&E induction.		
59	4.4	Inductions must include information re. EA Core Values, SHEW Code of Practice and key items from the Environmental Action Plan, (EAP).		
60	4.5	Daily briefings and regular Toolbox Talks given to the workforce by supervision, and records maintained.		
61	4.6	Appropriate H&S signs must be displayed at the site entrance to warn of the hazard potential.		
62	4.6	Key H&S documentation must be displayed in the site office and welfare area (H&S Law poster, F10, Liability Insurance, emergency information, the EA Incident Reporting posters, EA Core Values, etc.).		
63	4.6	Effective security must be established, (e.g. double clipped Heras fencing).		
64	4.7	A good standard of housekeeping must be established, with suitable rubbish containers positioned in strategic places, waste managed in line with the Site Waste Management Plan, (SWMP).		
65	4.8	Shower facilities should be provided in line with legal requirements, and based on risk assessment.		
66	4.9	Everyone on an EA project will wear as a minimum on site: Long trousers of a suitable kind, safety boots with steel toe cap and mid sole protection, safety helmet, high visibility vest or jacket, suitable gloves and suitable safety eye protection.		
67	4.9	Eye protection can be removed while on site if specified in a task specific risk assessment.		
68	4.9	The task risk assessments and site rules will determine any additional PPE requirements.		

Item No.	SHEW CoP ref.	Requirement	✓ X N/A	Comment/Action
69	4.10	When controls cannot eliminate the exposure potential to dust and fumes a risk assessment should be carried out to identify the type of RPE required.		
70	4.10	Respirators or face masks must be to the FFP3 standard as a minimum, and the wearer must undergo face fit testing.		
71	4.11	Risk assessments and method statements should be completed for construction related activities.		
72	4.11	Operatives should be briefed on the hazards, risks and precautions related to their work activity, with further briefings carried out as the work progresses or risks change.		
73	4.12	Operatives undertaking physical work should be briefed on the related method statement, and re-briefed as necessary.		
74	4.13	Substances must be purchased from reputable suppliers, used, stored and disposed of in accordance with supplier/manufacturer's recommendation, and a COSHH assessment completed for each substance.		
75	4.13	COSHH assessments and associated MSDS be kept readily available at the job site.		
76	4.14	Specific named individuals responsible for issuing a permit must be identified in the Construction Phase Plan along with the procedure for obtaining and closing the permit.		
77	4.15	Assess and identify measures to eliminate or reduce risks from exposure to Hand Arm Vibration.		
78	4.16	The potential for lone working identified in a risk assessment and appropriate precautions implemented.		
79	4.17	For activities near a water's edge, (especially for plant and equipment) a proportionate and site-specific assessment of ground conditions, particularly the bank, berm and channel side should be undertaken.		
80	4.17	Pontoons and similar floating work platforms must be provided with rigid edge protection to prevent persons working on the platform from falling into water.		
81	4.17	Within the first week of site whenever the work activity includes a significant risk of drowning an emergency exercise/drill for water rescue should be carried out and recorded.		
82	4.17	Principal Contractors must take into consideration the requirements set out in Appendix C of the SHEW CoP re. 'Control Zone'.		
83	4.18	Where any item of ride on plant is to be used on mats within one machine width of a water body, stream or river the risk of sliding towards the water will be assessed, documented and controlled.		
84	4.19	Diving operations min. 5-person team, surface supplied diving equipment, compliance with the HSE ACoP L104 diving projects inland/inshore, diving contractors' full members of the Association of Diving Contractors (ADC), and be aware of and eliminate or effectively control risks from differential pressure.		
85	4.20	Before breaking ground, checks carried out for underground services, (electricity, gas, water, telecommunication, etc.). Service plans/drawings viewed beforehand and area scanned by a competent person using a current calibrated Cable Avoidance Tool, (CAT) and Genny, (signal generator).		
86	4.20	PAS 128:2014 Specification for underground utility detection, verification and location must be applied to projects that foreseeably involve ground penetration		

Item No.	SHEW CoP ref.	Requirement	✓ X N/A	Comment/Action
87	4.20	The requirement for GPR can be risk assessed out where this is deemed not reasonably practicable. This decision must be recorded and approved by the Client.		
88	4.20	Flame retardant PPE, (in particular jacket and trousers) must be worn when excavating within 500 mm of a known live electric or gas main unless risk assessed out.		
89	4.20	Hand-digging techniques should only be applied using non-conductive or insulated tools.		
90	4.21	Consideration given to eliminate potential contact with overhead power lines, (e.g. diversion, isolation and/or the use of 'goal posts', etc.). 'Goal posts' used must have adequate clearance from overhead services, and warning signs where vehicles and plant pass under or parallel.		
91	4.22	The use of working at height equipment must be captured on a risk assessment, and the hazards, risks and precautions shared with the user prior to use.		
92	4.22	Mobile towers should only be erected and inspected by appropriately trained personnel.		
93	4.22	A 'Scafftag' should be placed in a prominent position on scaffold or mobile tower, including date of last seven-day inspection.		
94	4.22	Mobile Elevated Working Platform, (MEWP) sourced from a reputable supplier, and operated by someone with the CPCS or IPAF standard training.		
95	4.22	A stair way system should be prioritised over ladders, and podium steps should be prioritised over 'A' frame steps or ladders whenever possible.		
96	4.22	Use of a ladder avoided whenever possible. If unavoidable the ladder must have unique identification mark or 'Ladder Tag' that corresponds with Ladder Register, and a regular documented ladder inspection programme implemented.		
97	4.23	Consideration as to whether the work location and/or work environment constitutes as a confined space. If it does - confined space activities must be carried out in accordance with the Confined Space Regulations and HSE guidance document INDG258: *Safe Work in Confined Spaces*. Also, evidence available that persons undertaking the work have adequate experience, qualification and management authorisation.		
98	4.24	Temporary works, (TW) e.g. access scaffolds, props, shoring, excavation support, falsework and formwork. 'Temporary Works Coordinator', (TWC) identified and should ensure risk assessment and method statement completed, and a safe system of work developed.		
99	4.25	All work equipment must be inspected at least weekly, and this must be recorded.		
100	4.25	Construction teams must ensure adequate segregation between plant/vehicles and pedestrians.		
101	4.25	All task specific risk assessments must detail the safety control measures for keeping people safe when there is a legitimate need to work near plant.		
102	4.25	Pedestrian walkways, with appropriate barrier protection should be established wherever reasonably practicable, (especially in the site office and compound areas).		
103	4.25	Arrangements should be established that no-one is allowed to encroach inside the danger zone area of plant until the machine has been hydraulically isolated.		

Item No.	SHEW CoP ref.	Requirement	✓ X N/A	Comment/Action
104	4.25	Dumpers over 4T used on highway will have proximity sensors, or an alternative means of eliminating blind spots, and a Vehicle Collision Avoidance System, (VCAS) should be fitted unless there is a risk assessment which identifies that these controls are not necessary.		
105	4.25	All earth moving plant fitted with 360 vision technology by 2018, (allowing phased upgrade). 360 excavators over 6T fitted with seat-belt interlock devices to isolate hydraulics when not engaged, (also allowing for a phased upgrade).		
106	4.25	Seat belts, where fitted on plant/vehicles must be worn all the times the vehicle is occupied.		
107	4.25	All hydraulic oils in plant under this Code of Practice must be defined as "Readily Biodegradable" and meet OECD 301B.		
108	4.25	All plant operators trained and certified to Lantra or CPCS standards. NPORS standard is acceptable provided NVQ training can be demonstrated to achieve competent operator status.		
109	4.26	Principal Contractors should ensure a Traffic Management Plan, (TMP) is created and referenced in the Construction Phase Plan for the project. Vehicle operatives must be made aware of updates/changes.		
110	4.27	Framework partners and CDM duty holders will ensure effective arrangements are in place for managing safety, health or environmental emergency incidents.		
111	4.27	Emergency drills for fire, evacuation, water rescue, confined space rescue, harness recovery, etc. is required within 4 wks. from commencement of work on site or as agreed in the Construction Phase Plan.		
112	4.28	Accidents/incidents reported in accordance with the EA H&S and Environmental accident/incident reporting process flow chart, and the Reporting of Injuries, Diseases and Dangerous Occurrence Regulations, (RIDDOR) complied with.		
113	4.28	The Health and Safety Incident and Near Miss reporting procedure poster shall be displayed in a prominent position in the site office and in the welfare accommodation.		
114	4.28	Initial report, investigation and a final comprehensive investigation report must be provided in accordance with the SHEW CoP requirements.		
115	4.29	Plan and manage activities to avoid adverse environment impact by maximising opportunities.		
116	4.29	Environmental Action Plan, (Environmental Risk Assessment) actions delivered, and effectively work with Environmental Clerk of Works or others to ensure actions are completed and signed off.		
117	4.29	Locate sensitive areas and segregate or protect them from harm. These areas must be clearly marked on drawings, site rules and included in the induction.		
118	4.29	Materials not stored under the canopy or within the sensitive root zone of trees and erect tree protection fencing in areas of high risk, such as traffic routes.		
119	4.30	Take actions to reduce carbon through construction, (eco-cabins, dual generators and efficient plant).		
120	4.30	Utilise the CL:AIRE register of materials to help identify required and excess materials required for schemes.		

Item No.	SHEW CoP ref.	Requirement	✓ X N/A	Comment/Action
121	4.30	Utilise Site Waste Management Plans effectively on all schemes to record Duty of Care information as well as account for the waste removed.		
122	4.30	Ensure timber purchased, (permanent and temporary works) will comply with the EA timber procurement policy, and will ensure evidence of checks and documentation will be available on request.		
123	4.31	Engage with local Environment Agency Environment Officer to make use of their local knowledge and expertise in planning and undertaking works in or near to water bodies.		
124	4.31	Before starting works site drainage, other pathways, watercourses and groundwater source protection zones identified, and included in site environmental emergency plan or site pack.		
125	4.31	Attention given to use of grout, cement and concrete works pollution, and prevention measures.		
126	4.31	Suitable pollution prevention measures, (e.g. 'nappies') should be put in place under attachments, parked plant or static equipment, (e.g. generator, pump) whenever there is a risk of fluid leaks or spillages, especially during refueling operations or within 10m of a watercourse.		
127	4.31	Within the previous 6 mth period all operatives should have received spill kits awareness. Works lasting >30 days or in an environmental sensitive site a mock exercise undertaken within 2 weeks starting on site, unless or as defined in the Construction Phase Plan or Site Pack.		
128	4.31	Spill kits must be appropriate to the risk and amount of fuel and oils on site, and located to be readily available should there be a spillage. Suitable PPE, (such as goggles and impermeable gauntlet gloves) must be included in the spill kits.		
129	4.31	A suitable provision must be provided on site for hazardous waste, (e.g. following a spill) prior to its removal from site by a licensed carrier.		
130	4.31	On-site plant working in watercourses, vulnerable groundwater zones and sensitive areas such as SSSI's must use biodegradable hydraulic oil, defined as "Readily Biodegradable" and meet OECD 301B.		
131	4.32	Invasive non-native species, (Japanese Knotweed, Himalayan Balsam, giant Hogweed, etc.) identified, and relevant bio-security advice followed with site arrangements formally documented, briefed to staff and followed.		
132	4.32	If American Signal Crayfish or killer shrimp is identified at the work location EA management should be notified at the earliest opportunity for advice and guidance.		
133	4.33	The Environmental Incident and Near Miss reporting procedure poster displayed in a prominent position in the site office and in the welfare accommodation.		
134	4.34	Projects between 7 and 30 days = Contractor's site project management inspections, and recorded.		
135	4.34	30 days + = Contractor's HS&E Advisor inspections, normally every 2 weeks – recorded, and report distributed within 4 working days.		