

Droitwich Barge Canal
Lock 7
Works Information Package



Structure:	Barge Lock 7	Canal:	Droitwich Barge Canal
Functional Location:	N/A	Grid Ref :	384357 260092
Waterway Unit :	Regeneration Team South	Requested by:	J Leach
Sap Project Number:	P/00387	Budget:	N/A

I confirm that the following information represents the project requirements. I am satisfied that the work may progress on the basis of the attached information.

Approver: Signed: _____ Print: _____ Date: _____

Checker: Signed: _____ Print: _____ Date: _____

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1 Introduction

Lock 7 on the Droitwich Barge Canal is in a fair condition, with no major defects, but a very large amount of silt exists in the lock chamber, new lock gates and some brickwork repairs are required and a footbridge crosses the lock at its mid-point, carrying a public right of way, which is too low to allow boat passage.

The lock also requires certain improvements to satisfy minimum safety standards set by British Waterways for customer safety. These minimum safety standard works generally consist of installation of mooring bollards, lock quadrants and lock ladders.

Project Engineer – Lawrence Tall 07795235278

Local Authority – Wychavon District Council

2 Site Information

Site location:

Lock 7 is located to the west of where the A449 crosses the Droitwich Canal in the Hawford area between Droitwich Spa and Worcester.

Grid Reference – 384363 260093

Access to the lock is via fields and areas of floodplain, from an access ramp off the A449. Access on to and off the access ramp for vehicles other than cars and small vans will be difficult due to the speed of traffic on the A449 and the lack of a suitable slip road to the access track. Materials and plant deliveries will need to be assessed by the contractor for safety due to the restrictions. Vehicle access to the lock and access for deliveries will need to be cleared on a case by case basis by British Waterways and Wychavon District Council. Contractor to make arrangements for accessing the south side of the lock for plant and materials, please see section 5 of this document for details.

The canal towpath running between the A449 and Lock 7 (on the northern bank of the canal) carries a Public Right of Way, which then crosses the bridge over the lock. This Right of Way will be temporarily closed for the duration of the works, but it is likely that pedestrians will still try and access land to the north of the lock for dog walking and fishing etc. The contractor will need to ensure that members of the public are kept out of the working area throughout.

Compound areas:

It is expected that the contractor will utilise the compound area being used for the rest of the A449 and lock 7 works for the duration of the works.

List of landowners:

The land to the north of the lock, the lock itself and a strip of land 3-4m to the south-east of the lock is owned by Wychavon District Council (British Waterways' partner in the restoration project). Please see plans in Appendix D for further details. Land to the south of this area is owned by the King's Hawford Lodge School and there is to be no access on this land without prior consent.

Service details:

Please see the attached services plan for the local area.

Specific buried services include:

- Oil Pipeline running under canal at the downstream end of the lock. Definitive depth and actual location are unknown, see plan provided for information.

- Over head Central Networks cables run in this area, with a pole existing in the corner of the field owned by King's Hawford Lodge School and restraint cables anchored in to the ground close to the lock.

Any third party approvals:

Proximity of the works to the oil pipeline may be of concern to the owners of the pipeline. Contractor to contact oil pipeline company prior to start of works to ensure compliance with their safety requirements.

Works Completion:

Completion of works shall not be given until each element of work, as detailed in the Employers Requirements document, is completed to the satisfaction of BW Project Engineer, a Principal Inspection of the lock (to be undertaken by BW Asset Engineer) confirms this and all tests and inspections listed below are undertaken and to the satisfaction of the Project Engineer. Full completion of lock 7 to be given only in conjunction with completion of works to lock 8, detailed separately.

Following works completion, contractor to compile Health and Safety file and issue to British Waterways.

Defects and Defects Correction Periods:

The Defects Correction Period shall be 4 weeks from issue of defects notice to the contractor.

The Defects Period for the works is 12 months from date of completion of works.

Tests and Inspections:

The following tests and inspections will be carried out by BW Project Engineer –

- Check line and level of all new and repaired brickwork areas, including copings
- Check on full removal of silt from lock chamber
- Check that repair/replacement works to quoins are water tight following installation of gates
- Check for leaks within lock walls in areas of repaired/replaced/repointed brickwork, following gate installation

3 Works Information

Works information:

Please see the attached Employer's Requirements document and associated drawings for detailed works information.

General works list as below:

- Vegetation clearance – from lock chamber, lock edges and approaches
- De-silting – lock chamber and approaches
- Removal of footbridge – dismantling and disposal
- Cills and Quoins – lock gate quoins to be replaced on the downstream recesses. Cills to be assessed after dewatering and de-silting and repaired as necessary. Downstream quoins to be replaced with new steel sections, drilled and fixed to the walls and grouted to fill voids. Contractor to allow for BW lock gates fabricator to attend site for measure up of lock gates, following completion of cill and quoin works. Works to cills and quoins to be timed so as to allow at least 6 weeks for gate fabrication from measure up of quoins to delivery of gates
- Brickwork repairs – repointing, replacing missing brickwork and repair to damaged brickwork, all in lime mortar
- Copings – resetting salvaged copings and installing new copings as required
- Bollard installation – 3 mooring bollards required on each side of the lock
- Lock Ladders – an emergency escape lock ladder is required on both walls of the lock chamber, set in to new recesses in the brickwork

- Quadrants – laying concrete base and brickwork quadrant for lock balance beam operation
- Replacement bridge – fabrication and installation of new footbridge to carry public right of way
- Supply means of craning lock gates in to the lock chamber to allow BW personnel to install gates
- Installation of cast iron paddle gearing

Materials:

- Bricks – to be supplied free issue to the contractor
- Lime mortar – see specification document for details
- Large blue brick bullnose copings – to be supplied free issue to the contractor (some to be reclaimed from site and remainder to be supplied by BW)
- Cast iron bollards – to be supplied free issue to the contractor
- Steel lock ladders – to be sourced by contractor to drawings supplied by BW
- Paddle gearing – to be supplied free issue to the contractor
- New timber footbridge – to be sourced by contractor to drawings supplied by BW
- Timber fencing for pedestrian bridge approaches and to replace gaps following site clearance – to be sourced by contractor
- Cast iron paddle gearing - to be supplied free issue to the contractor

Specification:

Brickwork repair and lime mortar application specification found in 'BW Standards for Heritage Works' part J and K and 'Specification for Masonry and Brick Repairs on Lock Walls'. Both documents can be found attached to this package. For all works, contractor to refer to CESWI 5 for general works specification.

Drawings / sketches:

- DBC/WP4/321 – Lock 7 General Arrangement
- DBC/WP4/322 – Lock 7 Tail Wall Footbridge Drawing
- DBC/STD/300 – Mooring Bollard Details
- DBC/STD/302 – Lock Ladder Details
- DBC/STD/303 – Lock Quadrant Details

Setting out information:

- All setting out information to be taken from General Arrangement drawings and to be confirmed on site by BW Project Engineer prior to commencement of particular section of works.

Changes to Works Information:

Any required changes to works information or additional information, will be discussed with site staff during site visits or by phone and then confirmed in writing or by email to the contractor.

4 Environmental constraints

Silt contamination tests were undertaken in this area in 2001 which revealed that the silt tested was non-hazardous. British Waterways are currently revising tests and will confirm results to the contractor.

Site to be assessed for potential damage to habitat and for presence of protected species, by British Waterways' Ecologist, prior to commencement of works.

ALL CONDITIONS OF ECP TO BE ADHERED TO. Please see ECP attached to this works package.

5 Operational constraints

- Access to the lock-side is available on the north side only. Should access be required to the south bank for plant and materials movements, contractor will be required to arrange temporary works to suit.
- Existing pedestrian bridge should not be used for access other than for operative movements across the lock, following a risk assessment by the contractor. British Waterways have no details on the condition of the bridge. *The bridge has no carrying capacity.*
- Contractor to allow for fluming/overpumping of flows from canal upstream of the lock, through or around the lock. Anticipated flows are small, from rainfall and land drainage only. Contractor may wish to hold back water by means of a bund in the canal above the lock.
- Minimum 6 weeks delay period between date of measure up of new lock gates to delivery of gates to site. Contractor to time works to quoins, cills and removal of silt in chamber to allow for min 6 weeks turn around in fabrication of gates.

List of Appendices

Appendix A	ECP
Appendix B	Clients Risk Assessment Form CDM1.1
Appendix C	Designer Risk Assessments CDM 2.3
Appendix D	Location Plan
Appendix E	Services information
Appendix F	Bill of Quantities
Appendix G	Works Information: Employer's Requirements
Appendix H	BW Standards for Heritage Works part J and K
Appendix I	Specification for Masonry and Brick Repairs on Lock Walls
Appendix J	Works Drawings
Appendix K	Principal Inspection Reports