



WRG

Registered Charity No. 212342

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Waterway Recovery Group

in conjunction with

Lichfield and Hatherton Canals Restoration Trust

Method Statement

Site: Fosseway Heath, Nature Reserve & Wetlands

Task Name: Canal and wall restoration

Version: v2

Date: 25th June 2019

Name: Mikk Bradley

Position: Technical Support Officer

Site	Lichfield Canal	MS Title	Canal channel and retaining wall construction	Ref	CC201904/07
Work Area	Fosseway Heath Nature Reserve and Wetland				
Camp Dates	6 th – 13 th and 13 th – 20 th July				
Assessor	Mikk Bradley	Date Assessed	13 th and 25 th June 2019		

METHOD STATEMENT

The work on the camps includes the excavation of the canal channel and the restoring of the towpath retaining wall. The tasks and associated methods are shown below;

Task Plan – Work Task 1: Scrape the topsoil and reduce the ground level to the top of the original wall and establish a segregated footpath.



- Using hand tools, trim back the hedge to provide the maximum width of towpath.
- Excavate between the hedge and towpath wall to the top of the wall using the excavator, loading the excavated material into the dumper. (a survey has indicated that up to 1.4m of material will need to be excavated)
- The excavated material is to be tipped between the canal channel and the boundary fence with the railway line. The excavator will be used to spread and compact the spoil.
- The exposed surfaced will be levelled using the excavator and will be tracked over to provide a firm surface.
- Lamp irons and orange netting will be used to form a barrier between the retaining wall and newly formed path. A check will need to be made to ensure the newly formed path is wide enough.
- Pedestrian signs will be positioned at each end of the footpath.

Task Plan – Work Task 2: Excavate to expose the original brick retaining wall and the remainder of the canal channel.



- A survey will be carried out to establish the depth of excavation for the canal channel. Setting out pegs and batter boards will be installed.
- The Heras fence panels at the end of the lock will be repositioned to allow access to the canal channel at the end of the lock chamber and approach walls, whilst maintaining edge protection at the end of the top cill.
- The excavator will be used to expose the face of the towpath retaining wall, loading the excavated material into the dumper. A battered excavation face will be established at all times.
- The excavated material is to be tipped between the canal channel and the boundary fence with the railway line. The excavator will be used to spread and compact the spoil.
- The spoil is likely to contain whole bricks that can be salvaged and re-used. Hand tools will be used to salvage any whole, sound bricks. These will be stored on timber pallets close to the tip for cleaning.
- The excavation will be continued across the canal channel to the setting out points.
- An access route for the dumper will be established up the offside bank when required.
- **Task Plan – Work Task 3: Inspect the towpath retaining wall, carry out repairs and pointing as required from the inspection.**
- Once the wall has been exposed over the full height an inspection will be carried out. It is anticipated that the walls will need to be repointed and sections of brickwork rebuilt.
- Hammers and chisels will be used to rake out the pointing and any areas of damaged bricks. Reusable bricks will be stored on timber pallets close to the wall, but out of the way of the excavator, ready for cleaning. Damaged bricks will be discarded to the canal channel for removal with the excavator. Work will be stopped if a section of wall is found to be unstable. Work will continue by taking down the unstable section working from the top.
- Brick cleaning will be undertaken with scutch hammers and brushes. Cleaned bricks will be stored on timber pallets close to the wall where they will be needed.

The mortar will be made with cement and sand in a ratio of 1:3.

Task Specific PPE: In addition to the standard PPE, FFP3 dust masks will be worn when mixing mortar.

- A task specific Toolbox Talk will be delivered prior to starting. See flight case for COSHH sheets.

- Mortar will be mixed in the cement mixer and moved around site in wheelbarrows and buckets.
- Cement mixer will be located away from welfare area and so that any dust does not reach other volunteers not involved in the mixing activity.
- Cleaning the mixer will take place in a designated area of site to reduce environmental risks.

Note: Tasks will be reviewed daily and the team will be briefed each evening for the following day.

Scheduling

The scheduling of activities is governed by the layout of the site. The towpath retaining wall needs to be located before the new footpath can be installed. Wall inspection and repairs cannot be carried out until there is a sufficient length of wall exposed. Scheduling will follow the order of the tasks above.

Morning Checks

The leader will check weather and site conditions at the start of the day.
 Check the security of the footpath barrier.
 Erect WRG gazebo
 Set up first aid point and signs.
 Set up warning signs.
 Set up and turn on Burco.
 Plant to be checked by authorised operator. Any apparent defects to be reported to camp leader.
 Mixer and generator will be set up and checked. The generator will be refuelled if necessary.

Tools, Equipment and Plant

Tools

Required tools include mixer & generator, brick cleaning and bricklaying hand tools, shovels & spades, buckets, wheelbarrows, fuel cans & funnel. Automatic level and staff.
 This is all standard kit provided by WRG.

Plant

All plant will be provided by LHCRT. Plant required; excavator and dumper.
 Only volunteers with correct, up to date Driver Authorisation will operate plant. The camp provides an opportunity to train volunteers in the use of these items of plant.
 All plant activities will have a banksman with them.

All volunteers inexperienced in the use of any equipment will be given a toolbox talk by the camp leader/designated experienced person, and supervised until they have demonstrated appropriate competence.

Materials

Mortar: Cement, sand, ratio 1:3 – To be ordered by LHCRT and delivered to site. (COSHH Assessments 4, 6, 10)
 Bricks – reclaimed (COSHH Assessment 12)
 Lamp irons and orange mesh fence – to be ordered by LHCRT and delivered to site. (COSHH Assessment 17)
 Survey pegs and timber for batter boards – to be ordered by LHCRT and delivered to site. (COSHH Assessment 24)
 COSHH assessments are available in the flight case.

End of the day

Plant will be returned to secure area and isolated.
 All WRG equipment will be returned to the kit trailer and securely stored.
 Site will be fenced and secured.

All materials will be stacked neatly away from the public footpath.
 No excavations will be left open overnight.

If work plan changes please add details here:

RISK ASSESSMENT

Think about all the things which could go wrong while this job is being carried out, which could cause injury or damage to people or things or affect how and whether the task can be completed.
 In addition to this you will need to complete a risk assessment.

Key Task Risks (these should relate to items in your risk assessment)	For the following sub headings (and other site specific risks you come across) consider the following – What could go wrong? What effect will this have? How serious are the consequences? How will you mitigate the risk?	Risk assessment no: (This is your risk assessment that covers the risks in more detail)
<i>The Public</i>	Banksmen will be used when plant is operating and will stop work and isolate the plant when members of the public are on site. A segregated footpath will be established for members of the public.	5
<i>Hand Tools</i>	All tools and equipment will be fit for purpose and properly maintained. Instruction in their use will be provided. For vibrating and noisy tools operator use will be time limited. PPE will be provided. Toolbox talks are available for tools and equipment and are held on site in the flight case.	1, 6, 7, 8, 12, 14, 17, 18
<i>Manual Handling</i>	Mechanical lifting will be used wherever possible. Lifting aids, such as wheel barrows, are available on site. Brick and block materials are palletised. Correct handling techniques will be shown to all volunteers.	2, 8, 11, 19
<i>Ground Conditions</i>	Ground conditions will change as the work proceeds and the channel and towpath are excavated. Access routes will be established, but conditions on stockpiles will change and care will be needed when working on them. Suitable footwear, with ankle support will be worn at all times.	4, 21,
<i>Plant Operation</i>	All plant operated by authorised operators. All plant is properly maintained. Operator checks are carried out daily. Hi-viz clothing will be used at all times on site. Segregated plant / pedestrian routes are available on site.	3, 15, 22
<i>Hazardous Materials</i>	Volunteers will be made aware of hazardous materials and how they are used. COSHH assessments sheets are available for materials and are contained in the flight case. Protective equipment will be in use with hazardous materials.	13, 16, 23, 24
<i>Working at height</i>	Work on the towpath wall will be carried out from within the excavated canal channel. A barrier will be erected along the	10

	towpath wall once the footpath has been established. Excavations will pose a risk, but a safe means of access will be provided and volunteers will be excluded from the top of unprotected excavations.	
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PPE (Tick appropriate boxes)		
<i>Safety helmet</i>	<i>Y</i>	<i>At all times</i>
<i>Hi-viz vest</i>	<i>Y</i>	<i>At all times</i>
<i>Safety footwear</i>	<i>Y</i>	<i>At all times</i>
<i>Gloves</i>	<i>Y</i>	<i>Recommended at all times and mandatory when handling cement mortar</i>
<i>Long sleeve clothing</i>	<i>Y</i>	<i>When mixing mortar</i>
<i>Safety goggles</i>	<i>Y</i>	<i>At all times</i>
<i>Face mask</i>	<i>Y</i>	<i>When mixing mortar</i>
<i>Ear Defenders</i>	<i>Y</i>	<i>When mixing mortar (using mixer)</i>
<i>Other</i>		

SUPERVISION

Camp Leader: [REDACTED]

Task Leader: To be confirmed on site.

Approved by		Signed		Date	
Retired by		Signed		Date	
REVIEWED					
Date	Nature of Review	Changes Required		Reviewer	
	Internal Review				
	Trust Review				
	Approved by Insurers/ HO				



Health and Safety Declaration:

I was present at the Method Statement talk given by the Canal Camp leader (or an appointed substitute) and agree to follow the method outlined above or instructions given by the Canal Camp leader or assistant following a review of the method during the course of the work. (Note: This information will be kept on record)

Name	Signature	Name	Signature

