Drawing number / Rev

B1523600/OB/101-A

LEGEND

- Existing tree
- Proposed willow pollard
- Existing scrub
- Proposed scrub
- Existing bank and marginal zone
- Proposed bank and marginal zone
- Existing grassland
- Proposed hay meadow (Above 38.0m contour)
- Proposed wet grassland (Between 37.0-38.0m contour)
- Proposed raised bank
- 38.27 Existing ground level
- 38.6 Proposed finished ground level
- 37.0 Proposed finished contours
- Proposed 2m wide hoggin footpath
- Proposed mown grass footpath
- Existing footpath
- Proposed ephemeral pond (below 37.0m contour)
- Existing watercourse
- Proposed bird screen
- Proposed bed substrate
- Proposed marginal planting
- Proposed habitat pile
- Existing fishing pegs retained
- Proposed large woody debris

Notes

Refer to the following drawings for further information regarding:

1. Proposed finished levels and surface finishes (Incl. Footpath Detail) Drawing B1523600/OB/103 'Option B Earthworks Plan'
2. Bird screen construction details Drawing Number B1523600/OB/105 'Option B Bird Screen Detail'
3. Willow pollard, scrub planting and grass seeding Drawing Number B1523600/OB/106 'Option B Planting and Grass Seeding Plan'

RESTORATION PRINCIPLES

The project objective is to improve the recreation and wildlife potential of Fobney Island, whilst also improving floodplain connectivity and in-stream diversity of the River Kennet, particularly for fish. The vision for the site is to create a mosaic of wetland habitats, including ephemeral ponds and shallow scrapes in a lowered floodplain; introduce naturally occurring in-channel river features and provide improved low key public access to the island for passive recreational pursuits including walking, bird watching and angling.

A section of the existing flood bank at the upstream extent of the island will be lowered from 38.60m to 38.11m AOD to encourage more frequent flooding of a wetland area created on the western extent of the island by lowering ground levels by about one metre, from a typical level of 38.5m to 37.5AOD. This area of flood meadow, which will operate as an overflow channel in high flow periods, has been designed to be braided, with topographic highs acting as small island features at high flows and topographic lows, forming gently graded and shallow seasonal ponds. A small backwater to the River Kennet will be created at the downstream extent of the flood meadow to provide a refuge for fish during high flows and an escape route for fish from the wetland area during receding flood flows.

A wetland area comprising shallow seasonal ponds and scrapes of differing depths to around 36.0m AOD in depth will also be created in the eastern area of the scheme. This wetland area will be less well connected to the River Kennet than the flood meadow in the western part of the scheme, and will be predominantly groundwater fed, although it will continue to be inundated in high flow periods as it is now.

Public access to the eastern part of the island will be encouraged through the provision of a circular walk around the wetland scrapes, with links to the Kennet and Avon Canal towpath. The circular walk will be located on slightly higher ground formed at approximately the same level as the existing flood bank, 38.5m AOD, to provide access at times when the western part of the island is flooded, and thereby enhancing visitor experience. Part of the walk will be surfaced with hoggin, to provide enhanced access opportunities for those of limited mobility. Bird screens will be provided with views over the flood meadow for an improved bird watching experience.

The grassland areas will be seeded with native wildflower grass mixes based on the vegetation of unimproved flower rich lowland meadows, traditional water meadows and the wet margins of ponds. Thorn scrub planting will be used to create a more secluded area for wildlife in the west of the site and screen the island from the adjacent raised canal towpath. Willow pollards, sourced from trees growing on the south bank of the River Kennet, will be planted alongside the river in the eastern part of the scheme to improve the landscape character and habitat value of this steep section of bank. The margins of the backwater will also be planted with a selection of emergent plants to enhance the botanical diversity of the river.

Additional spawning habitat, which will also be attractive to invertebrates, will be provided in the upstream part of the River Kennet where the channel is wide and shallow. This will be achieved by importing gravel 10-30mm in diameter to the site and placing it in the river to a depth of 20mm on top of the existing gravel substrate.

In-channel diversity will be encouraged by felling live willow trees directly into the channel. This will create fish refuge areas behind the felled trees, where coarse woody debris washed down the channel can accumulate and cause variaty in flow. The tree felling and pollarding works will also open up the tree canopy adjacent to the river, thereby enhancing habitat diversity and improve access to the island for birds.

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following :

CONSTRUCTION

- Traffic management required where access is shared and at plant crossings.
- Public footpaths to be diverted and signed according to an approved management plan. This is currently a public space and a well signed temporary footpath diversion will be required.
- Heavy and light construction traffic to be segregated.
- Site is on the Environment Agency register of hostile sites.
- Existing bridges have weight limits and are not suitable for all construction traffic. A temporary, contractor designed access is needed.
- The Site is liable to flood. Emergency access and egress points are to be established and advised/ published.
- The velocity and depth of the river water will vary without warning.
- Overhead electricity transmission lines are present on site for which a safe system of work is to be agreed with the service provider.
- Specialist arboriculturalist to undertake Large Woody Debris creation.

ENVIRONMENT

- Vegetation clearance, including pollarding and gaining material for Large Woody Debris, to be outside of bird breeding season (end February to end August). River works to be outside fish migrating season (March to August).
- Storage of soil to be outside the 1:20 year floodplain (38.7mAOD). Emergency plan for working in areas at risk of flooding is required.
- Intermittent archaeological watching brief required during construction.

OPERATION

- Presence of steep banks with no edge protection.
- Presence of silty areas on the floodplain.
- Bed substrate riffles do not require maintenance.
- Presence of Large Woody Debris.

DECOMMISSIONING / DEMOLITION

- Not relevant for this project.

FOR TENDER

Rev	Rev. Date	Purpose of revision	Drawn	Checkd	Rev'd	Apprv'd
1	24-06-2011	FOR TENDER	CW	JC	JB	JB
0	31-03-2011	DRAFT FOR CLIENT COMMENT	CW	JC	CB	JB

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Client: Environment Agency

Project: FOBNEY ISLAND RIVER & WETLAND RESTORATION

Drawing title: OPTION B MASTERPLAN SHOWING LOWER FLOW CONDITIONS

Drawing status: FOR TENDER

Scale	1:1000 @ A0	DO NOT SCALE
Jacobs No.	B1523600	
Client no.		
Drawing number	B1523600/OB/101-A	Rev 1

This drawing is not to be used in whole or part other than for the intended purpose and project as defined on this drawing. Refer to the contract for full terms and conditions.

0 10 20 30 40 50 60 70 80 90 100 m
SCALE 1 : 1000

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