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ARCADIS	Health & Safety - Designer's Risk Assessment		
	Project Title Elmsbrook Wingwall - Bicester		

#### **Assessment Coverage:**

Detailed design of Elmsbrook Wingwall

### **Scope of Works:**

- The scope of the proposed works is to design a new retaining wall to stabilise the embankment adjacent to Elmsbrook Bridge, to enable the completion of the bridge cladding works and provide support to the highway.
- The final arrangement is to install gabion retaining walls which will be founded on mass concrete foundations. A detailed construction sequence has been developed to enable the works, which incorporates sheet piles, and excavation works.

#### **Brief Description of the Works:**

The sequence of works is detailed on the contract drawings which include:

Phase 1

Install sheet piles

Excavate for the furthest 3 columns of gabions;

Install waling beam to sheet piles;

Construct concrete base;

#### • Phase 2

Install the furthest 3 columns of gabions;

Install hardwood packing between gabions and end sheet pile.

Phase 3

Excavate for the remaining gabions;

Construct remaining concrete base;

Install bridge cladding;

Phase 4

Install remaining gabions;

Backfill to gabions;

Remove waling beam and sheet piles;

Install footway constructions;

Complete earthworks;

Install fencing.

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## Key Risk Reduction measures taken during design process:

The main measures undertaken to reduce risk at this point are:

- Archive information received with contract was reviewed and the findings presented with regards to the existing structure;
- o Site visit undertaken to confirm embankment slope and constructability of the works;
- Review of the previously designed sheet pile solution and incorporated the limitations of the driving depth.

# **Significant Project Specific Hazards Remaining:**

At this stage, the project hazards remaining which were unable to be designed out include:

- o Presence of buried services;
- Working adjacent to highway;
- Working adjacent to watercourse;
- Working on a steep embankment;
- Potentially unstable slope Contractor to monitor the slope;
- Potentially unstable sheet piles Contractor to follow the construction sequencing and do not overdig

## **Specific Construction Requirements**

The following measures are deemed necessary in addition to normal working practices that will be delivered by a Competent Contractor.

- o Contractor to monitor the excavated slope during the works;
- Contractor to follow the construction sequencing of the excavation works and do not overdig during the works;
- Balanced excavations and maintain plant exclusion zone.

### Means by which significant hazards conveyed to contractors and others:

Significant project hazards will be included on the drawings

Assessed by:							
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