Method Statement, Environmental Risk Assessment and Flooding Contingency Plan

Canford Bridge, Wimborne - Masonry Repairs to Downstream Elevation

Location and Setting

Canford Bridge spans the River Stour between the civil parishes of Wimborne Minster and Canford Magna in the geographical county of Dorset, immediately downstream of the junction of the Stour and its tributary the River Allen on the south side of the town of Wimborne Minster, centred on NGR 401600 099100. It is of three parts: the Main span of three arches restrained at its northern end by an abutment set into an earthwork embankment that carries the B3073 into Wimborne; a span of six Flood arches that carry the road across the southern flood plain to an earthwork embankment that carries the road into the village of Oakley; and an attached Footbridge that runs along the western side of both spans. Though passing through the narrowest point of its floodplain for several kilometres, the Stour is less than c. 6km upstream of its debouchment into Christchurch Harbour and, though not tidal, is slow- flowing and intensively meandering.

Purpose of the Works

Works are required to repair the defective masonry and historic render repairs on the downstream elevation of the main river bridge. These works are necessary to maintain the structural integrity of the bridge. Works will be carried out during the months of June to August 2020 to avoid the risk of flooding issues and avoid the fish spawning seasons.

Site Compound and Access to the Bridge

The site compound will be set up on a fenced area of land owned by Wessex Water to the south west of the bridge which contains a small pumping station. The compound will be a small welfare unit with washing facility and toilet and there will be a storage unit for tools and equipment.

Compound Location

Access to the River bank will be across the land owned by the Christchurch Angling Club using small plant vehicles and on foot. During February a 2.5m wide swathe of grasses and bushes will be cut down to ground level provide the access to the River and remove the risk of birds nesting prior to commencement of the works. Refer to Drawing WZ0048-103 Area of Works. The bridge will be accessed using a plastic modular pontoon constructed and launched from the south west river bank. The pontoon will be towed to the downstream

elevation using a small work boat and then

tethered

to the structure to ensure secured and not at risk of become washed away. The pontoon will be no greater than 10m by 3m as shown below and the size and shape will be constructed according to where access is required. Rather than provide a drawing the photo below shows the size of pontoon to be used for the works carried out in 2013 on the upstream elevation.

Method Statement

Initially the downstream elevation will be surveyed to locate and mark up all defective masonry. The defective masonry will be removed using hammer and bolster and loose material removed using a wire brush. Prior to rendering the exposed faces will be washed down with clean water.

Works will be undertaken as per drawing WZ0048-108 Downstream Elevation Repairs. Shallow repairs less than 50mm deep will be rendered with a lime mortar and for deeper repairs - holes will be drilled so that stainless steel pins can be chemically bonded into the stone followed by the application of the lime mortar.

Areas of voids or any re-pointing will be marked up and existing defective mortar removed by hammer and chisel. The mortar will be removed to a depth of 25mm or the width of the joint. The joint will be spray will clean water and lime mortar packed into the joint with a trowel.

Environmental, Flooding and Ecology Risks

Risk of polluting to the River

The pontoon will be covered with debris sheeting and the access tower will be located centrally on the pontoon so that any falling debris with be captured. All debris will be swept up and bagged at the end of each day and removed to the skip located in the compound area. Mixing of materials will be undertaken in bunded area in the compound and transported to the pontoon by boat. Spill kits and plant nappies will be used on site.

Flooding Contingency Plan

The risk of flooding will be low due to the fact that these works will be undertaken during the months of June to August.

Only one span at a time will be restricted at any time by the works so that the two remaining spans will always remain clear. Any debris build up will be removed immediately. The pontoon will only be used when the river flow levels are considered safe by the supervisor. The Contractor and Council will sign up to the Environment Agencies flood warnings application.

EA Flood Warning

The pontoon will remain in the river for the duration of the works but will be removed from the river should there be notification of a flood warning.

The location of the site compound area is considered far enough away and on ground much higher than the river that it is not considered be at risk to a flooding event.

Ecological Risks

Enclosed is the Preliminary Ecological Appraisal undertaken by Dr Annabel King the Senior Ecologist from Dorset Council. The only issue is the potential bird nesting habitat between the road and river bank where the floating pontoon will be launched. As suggested in the report this grassland will be cut down tight to the ground now (before bird nesting season starts at the end of February) and the height will be maintained until the start of works.