



Stonbury was contracted to design, manufacture and install a bespoke two-headed, pole-mounted radar bracket to measure water height levels at a gauging station in the midlands.

The scope was to design and manufacture of the two-headed radar bracket which would position radar heads at the correct height and distance over the water. It included the construction of a suitable foundation for the supporting pole, installation of the pole and bracket, ground excavation and installation of ducting between the pole and the control kiosk, and safe concrete access with hand-railing.

Stonbury provided a topographic survey and additional dimensions for the client's planning application. Following a successful approval, the design process incorporated a review of the radar post and access design. During this, Stonbury redesigned the access from timber-edged stairs and wooden handrailing to concrete stairs and tube clamp handrailing to help resist damage from high water levels.

While fabrication of the radar arm was completed off-site, a utilities search was undertaken to locate underground pipework prior to excavation works. Once the foundations were laid, the team excavated a seven-metre channel between the pole and control desk in which to install 100mm diameter ducting. Concrete access routes and stairs to the mounting pole were constructed and hand-railing was erected along with additional wooden fencing.

The pole, arm and made-to-measure radar brackets were installed alongside the embankment retaining wall downstream of the existing control cabinet and designed so that the pole could be lowered easily into a safe working area for maintenance.

Afterwards, a suitable entry point for the cabling was made into the side of the control kiosk, with appropriate cable protection sheathing for the above-ground sections. The communication cable was supplied by the client.

Stonbury is pleased to have delivered the programme using environmentally-conscious processes including battery powered tools and solar powered welfare vans.