

# Brompton Booster Stn.

## Overview:

Site Location:	>> Brompton Regis
Client:	>> Wessex Water



Brompton Regis is located within the West of Somerset and is a remote rural village. The Project Brief for the scheme necessitated the improvement of the existing Booster Station both to increase the maximum pass forward rate during peak periods and to update the existing failing asset. A fundamental part of this Clean Water supply site was the requirement to maintain flows during all construction phases. This posed particular difficulties as strict planning conditions necessitated the new Booster Station was constructed on the site of the existing, and enhanced the aesthetical appearance whilst providing off road parking for maintenance and inspection vehicles. Security through both delivery and post completion was obviously key.

This particular project was delivered via the Wessex Water Networks 1 Team and included Kier MG as the MEICA partner and Lewis as the civil partner. As the Construction phase/overpumping and final commissioning spanned the entire project Kier MG acted as Principal Contractor for the scheme. Lewis involvement however extended beyond the conventional Construction partner. Our workscope included not only the major construction works but also all shutdowns, under pressure connections and phased overpumping connections to ensure flows and a secure supply was maintained.



FIG 1— Demonstrating road gradient of 20degrees



FIG 2— Vehicle lay-by and improved aesthetic impact

Construction itself posed many difficulties on this project. Historic land issues and stringent planning conditions restricted the opportunity for an off line solution. In addition, the road gradient of 20degrees and extremely tight access approach roads posed logistical problems. The solution was to construct the permanent layby first but, importantly incorporate the temporary pipework for a self contained security kiosk with integral pumps. Once this was in place the new Booster Station could be constructed without hindrance .

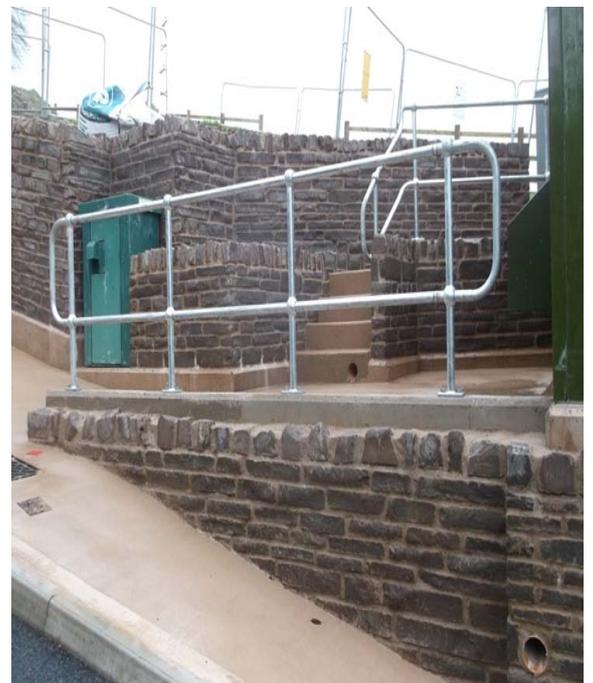
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During the initial site visit all elements of buildability and construction requirements including both Health & Safety and Environmental concerns were reviewed. Reviewing these items at an early stage allowed the key Milestones for Pre Construction activities to be identified and managed through the design phase. Items such as early hedge clearance and laying the existing trees ensured bird nesting risk was reduced, whilst key item such as Road Closure dates etc. could be discussed with the relevant authorities and timely notices submitted to ensure a secure start date. On this particular scheme, a remote compound was dictated and again early identification allowed planning to be obtained for this and secured commencement as planned.

Close integration with the MEICA delivery Partner and both the Civil and Mechanical Design Teams combined with the integration of the Operations Team led to a seamless delivery on the project. Due to the complex temporary and permanent flow transfers Phased drawings were developed clearly detailing the sequences and key changeover points through the construction and commissioning phase. Termination points for each partner were detailed and clear H&S responsibilities and ownership determined.



The largest accolade for this project is that construction of the new booster Station was complete on the site of the existing with no interference to customer supply. This could only be achieved by an integrated construction delivery team and clearly defined roles and responsibilities. Difficulties with the site arrangement and access were overcome by all parties being involved at the Project Brief handover stage and the critical path items being identified and processes implemented to manage.



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