

Recker Transfer Station

Mesa, Arizona

Dibble provided comprehensive engineering services to evaluate and design rehabilitation improvements to the Recker Transfer Station TS-2.

Under normal operating conditions, the City transfers water from the Central Arizona Project (CAP) water treatment plant to the lower Falcon Field pressure zone by gravity flow through a 48-inch water transmission main located in Brown Road. During periods when the CAP treatment plant is off-line, water is pumped from the Falcon Field zone to the CAP plant reservoirs for distribution (reverse flow). The Recker Transfer Station TS-2 is an inline pumping station that boosts pressure during the reverse flow operations.

Due to this operating scenario, the booster pump station has seen limited service since its construction in 1985. Dibble evaluated the condition of the existing equipment and recommended rehabilitative improvements to enhance equipment life and improve station reliability. Based on this evaluation, equipment repair and/or replacement construction plans and specifications were developed.

Improvements to the system included replacing the bearings and rebuilding the impellers on the four 6,000-gpm horizontal split case pumps, upgrades to the electrical and communication systems, replacement of an existing flow meter and relocation of bypass operation control valves from a below grade vault to an above-ground piping installation inside the pump station. Timing of the construction was critical, and Dibble worked closely with City operations staff to develop pipeline dewatering plans and coordinate transmission main shutdown with the distribution system operation, ensuring that water service to the Falcon Field zone was maintained throughout construction activities.



Client:
City of Mesa