

60 MGD Deep Well Pump Station Bypass Allows City to Repair Critical Valves



PROJECT SCOPE

A municipality required a 60-70 MGD bypass system to be setup within a 70' deep wet well while valves at the pump station were repaired.

CLIENT

Municipality and General Contractor

INDUSTRY SEGMENT

Municipal

EQUIPMENT

- 7 - Electric submersible pumps
- 7 - Start/Stop panels with soft starts
- Tapping saddles
- HDPE pipe
- Valves

BACKGROUND

In order to repair critical valves that handle much of the flow at a Kansas City, MO pump station, the municipality required a 60 MGD bypass to be setup within a 70' deep wet well. The combined sewer and storm drain pump station feeds into a 72" force main before arriving at the WWTP.

OUTCOME

Rain for Rent's Pontoon Beach, IL branch and Engineering Department collaborated to design a 70 MGD bypass using six primary submersible pumps and one back-up pump within a 70' deep wet well.

HIGHLIGHTS

- Pump installation was a challenge because the system had to be bypassed from the main influent wet well of the pump station which was 70' deep. The Rain for Rent operations team followed safety protocols and wore harnesses tied to anchors as they dropped the pumps and pipe into place.
- The system was set up in multiple phases to allow the valve repairs to be conducted while the bypass flowed uninterrupted.
- 5,100' of 18" and 30" HDPE discharge lines merged into the existing force main from the submersible pumps.
- Rain for Rent kept two entire pump rebuild kits in inventory during the duration of the project to minimize downtime should the need arise.
- The project was completed without incident and on time.

CUSTOMER FEEDBACK

The customer was happy that the system provided was exactly what they asked for with no surprises, which saved them money during the eight-month project. The customer is planning on working with Rain for Rent on future projects.



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