



DAKOTA CITY WATER TREATMENT FACILITY IMPROVEMENTS PROJECT  
RECEIVES A 2016 ACEC/NEBRASKA AWARD

DAKOTA CITY, NEBRASKA – The American Council of Engineering Companies (ACEC)/Nebraska recently announced their 2016 Engineering Excellence Awards, selecting JEO Consulting Group, Inc. and the City of Dakota City as a Merit Award and Category F: Water/Waste Water Award winner for the Dakota City Water Treatment Facility Improvements Project.

The award was given out at the ACEC/Nebraska Awards Gala in Omaha, Nebraska on February 24, 2016. Present at the awards ceremony were Ethan Joy, PE, Tyler Hevlin, PE, and Viv Novotny of JEO; and Jerry Yacevich, Mayor, Alyssa Silhacek, City Administrator, and Stacey Janssen, Water/Wastewater Department Supervisor of Dakota City.

The City of Dakota City's water treatment plant was originally constructed in 1979. The water plant treats water from two groundwater wells that have excessively high concentrations of iron, manganese, and arsenic. The plant has significantly aged and the water quality had diminished.

JEO was contracted by the city to complete a preliminary engineering report (study,) which revealed two primary issues. The first, the solids contact unit (SCU) basin mechanism was in poor condition and essentially inoperable. The second, the gravity filters were in need of several improvements. Based on

recommendations from the study, JEO was contracted to design the recommended improvements to the water treatment plant.

Prior to beginning design, a pilot study was conducted to verify the effectiveness of a temporary bypass arrangement that would be necessary to allow for construction of the SCU. The first phase of construction was to rehabilitate the gravity filters, with the second phase of construction focusing on the SCU. An integral part of the construction of the improvements was the implementation of a full bypass of the failing SCU utilizing temporary equipment and tanks to provide treatment of the water while the SCU was out of service.

Another key part of the construction process was to provide users notice and information on the project, via open houses, mailings, and social media. Following construction, the city has experienced significant improvement in the quality and consistency of the water produced by the water treatment plant.