

GOLF COURSE ARCHITECTURE

YELLOWSTONE COUNTRY CLUB

Billings, Montana

Steiner Thuesen PLLC was retained to prepare construction documents for replacement of the irrigation system that services the 18-hole course. The wall-to-wall design, including 1,400 sprinkler heads, replaced the old irrigation system including the control system and pump station. Independent irrigation head test data and specialized design software was used to provide uniform irrigation coverage resulting in an overall reduction of water and energy use.

Historically, the golf course irrigation cycle could not be completed in a timely manner due to undersized pumps and mainlines. This caused conflict with golfers and maintenance work. The new design uses a fully automated, 3,800 gallon per minute, pump station to supply water



to the new irrigation system. The station includes (4) 100 horsepower and (1) 30 horsepower vertical turbine pumps with premium efficient motors, all running on variable frequency drives. Automatic filtration and a fertigation pump were included in the station design. The new design features correctly sized mainline piping to convey the water to the course, allowing complete and efficient use of the pumps' full capabilities. If needed, under stress or tournament conditions, the entire grounds can now be irrigated in just a few hours.

Formost Construction Company, the largest golf course irrigation contractor in the world, installed the new system using custom built machinery pictured above. The construction cost was approximately \$1.85 million.

