

# CASE STUDY

## AB&I Foundry Case Study U.S. Bank Stadium



**U.S. BANK STADIUM, HOME OF THE MINNESOTA VIKING'S \$1 BILLION PROJECT RELIED ON AB&I PIPE AND FITTINGS FOR THEIR HIGH DEMAND DWV PLUMBING SYSTEM.**

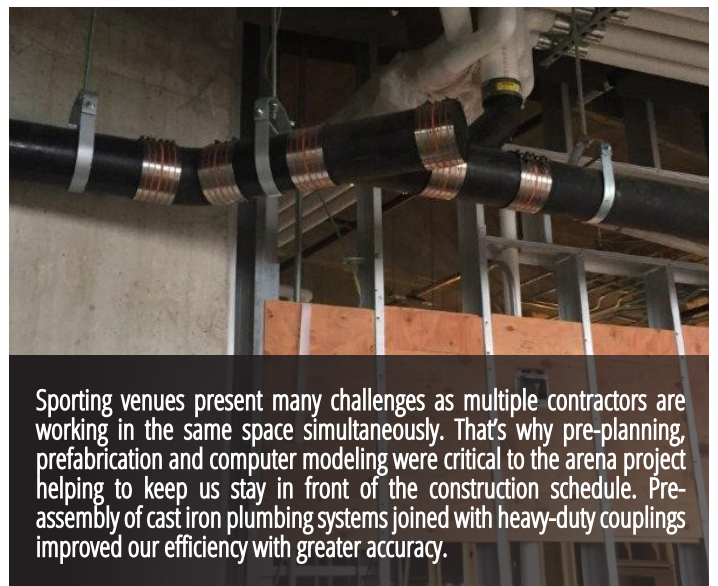
U.S. Bank Stadium is a fixed-roof stadium in Minneapolis, Minnesota. The stadium opened in 2016 and is the home of the Minnesota Vikings NFL team. The Stadium is a one-of-a-kind project. The building's signature roof line is meant to evoke the bow of a traditional Viking ship. The clear, ethylene tetrafluoroethylene (ETFE) roof will be the largest of its kind in the world and will give fans the feeling of an outdoor stadium, while protecting them from Minnesota's unpredictable weather.



Harris Mechanical was the contractor employing more than 130 sheet metal workers, plumbers and pipe-fitters. Off-site prefabrication was employed to alleviate space issues on the build site. With BIM modeling, the contractor was able to complete more complex prefabricated plumbing assemblies. Harris Mechanical used AB&I cast iron soil pipe and fittings and Husky heavy duty couplings for their DWV plumbing systems to handle the high demands put on a plumbing system in an arena. Over 44-miles of plumbing piping was used and 2,250 plumbing fixtures.

*The Vikings NFL team played their first pre-season game at U.S. Bank Stadium in 2017 and will host Super Bowl L11 in February 2018*

*The stadium has a robust plumbing system with 979 restroom fixtures, more than double the 435 at the previous stadium. The current general admission restroom ratio will be as low as 1/40 for women (one water closet per 40 women) and 1/60 for men.*



Sporting venues present many challenges as multiple contractors are working in the same space simultaneously. That's why pre-planning, prefabrication and computer modeling were critical to the arena project helping to keep us stay in front of the construction schedule. Pre-assembly of cast iron plumbing systems joined with heavy-duty couplings improved our efficiency with greater accuracy.