In 1902, German immigrant Frederick A. Scheel used $300 he earned from his first potato harvest as the down payment on the first SCHEELS, a small hardware and general merchandise store in Sabin, Minnesota.

Today, SCHEELS is still a family-owned, 25-store operation with facilities in 10 states including its headquarters in North Dakota, Iowa, Minnesota, South Dakota, Montana, Wisconsin, Nebraska, Nevada, Illinois and Utah. A newly built 144,000 square foot Rochester MN retail shopping experience showcases the area's largest selection of sports, fashion, and footwear under one roof.

Special attractions include buck hunter arcade, a shooting gallery, and roller ball mini bowling. Customers can also test their golf, soccer, hockey, baseball, football and basketball skills on the sport simulators.
Installation Summary

Superior Mechanical, founded by Jim Gander in 1982 and currently managed by Craig Curley, installs plumbing, steam, hot water heating systems, HVAC, gas and mechanical insulation.

Eric Gander was manager on the SCHEELS project and said that Superior won the competitive bid to install the Buderus boilers. The store is an expansion of the existing mall and was extensively remodeled to accommodate the radiant heating and snow-melt system. Installation, led by field foreman Ben Halvorson, began in early 2015 and was completed in April of this year.

Benefits and Conclusion

Trogstad Engineering based in Fargo, North Dakota, was the consulting engineer.

Grant Metsker of Outcome Construction Services (Lenexa, KS) was the commissioning agent. Metsker commented that “the general installation, boiler commissioning and functional testing went smoothly, and the boilers communicated with the building management system.”

Two MCM10 commercial controls can handle up to 8 GB162 boilers and provide the flexibility to operate the cascade in either series or parallel mode, allowing flexibility and highest operational efficiency.

Metsker noted that during testing the control sent a fault code for a non-functional boiler, but did not identify the particular boiler that was down. However, with the advantage of built-in redundancy in having 7 other boilers available to pick up the demand, this was not a significant issue.

The Rochester SCHEELS is currently open for business and the hydronic system is functioning as expected.

Project Name:
- SCHEELS Store, Apache Mall, Rochester MN

Manufacturer's Rep
- FourMation Sales, Rogers MN

Consulting Engineer:
- Trogstad Engineering, Fargo ND

Installation Contractor:
- Superior Mechanical, Rochester MN

Commissioning:
- Outcome Construction Services, Lenexa KS

Application and Equipment:
- Buderus 8-unit cascade GB162-80 and 100 models

Completion:
- April 2015

Nick Trojan is the Buderus Sales Representative at FourMation Sales in Rogers, Minnesota. Nick explained that the GB162 TR-8 Cascade has the flexibility to provide up to its full output of 2.24 MBH while having a high turndown ratio of 40 to 1 when full output is not required. The radiant floor extends through the entry of the store and around the perimeter. Fan coils provide space heating throughout the 144,000 sq ft space. Radiant snow-melting capability is provided in the entry and rear loading dock. The boilers are vented with PVC through the roof for exhaust and intake air.