



## **ARCHITECTS**

HKS Inc. Dallas, Texas Studio Five Architects Minneapolis, Minnesota

## **GENERAL CONTRACTOR**

M.A. Mortenson Co. Minneapolis, Minnesota

# CUSTOMER / INSTALLER

Egan Co. / InterClad Brooklyn Park, Minnesota, USA

## **CERTIFICATION**

LEED Gold®

## FEATURED PRODUCTS

1600 SS Curtain Wall System 1600 Wall System™3 Curtain Wall 350 Tuffline™ Entrances

#### **FINISHES**

Anodize #17 CLEAR – 1600 SS Curtain Wall System, 350 Tuffline™ Entrances Anodize #40 DARK BRONZE – 1600 Wall System™3 Curtain Wall in office areas

## **GLASS TYPE**

Viracon VRE1-59 Argon-filled insulating glass in 1", 1-1/16" and 1-5/16" overall thicknesses

# U.S. Bank Stadium

MINNEAPOLIS, MINNESOTA

PROJECT PROFILE

ARTS & LEISURE

"One thing is certain: this is not your average stadium. Between the wide concourses, high-tech lounges, turf-side suites, a section of telescoping seating and the world's largest pivoting doors, the venue is groundbreaking – and exemplary."

- ArchDaily.com

The jagged, 270-foot-high U.S. Bank Stadium was designed by Dallas-based HKS Inc. with local firm Studio Five Architects to reflect the strong and diverse heritage of Minneapolis, connect visitors with the outdoors and offer breathtaking views of the city's skyline. HKS wanted to "create a resource that welcomes all the people of the Twin Cities and the state of Minnesota. The design's attention to craft and value, to texture, detail, clean lines and elegant functionality evoke the early, founding influence of Nordic cultures, while the use of distinctive pattern, texture and finishes provides a palette for recognizing the rich range of cultures and nationalities in the Twin Cities region."

#### **DESIGN HIGHLIGHTS**

The 1.75-million-square-foot facility seats more than 65,000 fans and features seven levels, two 360° concourses and a translucent roof. The multipurpose façades include approximately 200,000 square feet of Kawneer curtain wall systems – each elevation unique in shape, height and slope – and heavy-duty Tuffline™ entrances throughout.

#### **CHALLENGES**

- With a firm timeline, the design featured walls of varying shapes, angles and sizes, requiring sleek, versatile and high-performing products to be installed quickly.
- The distinctive shapes posed a challenge due to hard-to-access work areas
- Protecting stadium occupants from harsh winters was critical.

- Large pivoting doors that open onto the plaza needed to enhance skyline views, yet remain modern and provide thermal protection when closed.
- Visitors needed to enter and exit the stadium when the large doors were not open.

#### **SOLUTIONS**

- Most of the façade utilizes Kawneer's 1600 SS Curtain Wall System featuring screw spline joinery, which allows the products to be preassembled, joint sealed and delivered and installed as larger units.
- To have nearly 5,260 pieces of glass and curtain wall delivered and installed in complex areas, InterClad fabricated custom gantries to set the glass and used intricate rigging equipment for the curtain wall.
- The 1600 Wall System™3 Curtain Wall used for punched openings in office areas incorporates inside glazing and an IsoStrut™ thermal barrier for outstanding thermal performance and installation economies.
- The doors standing 75" to 95" tall and 55" wide, and weighing between 160,000 and 180,000 lbs – were custom designed by Hardesty & Hanover and HKS and manufactured by Industrial Door Contractors Inc. Each door is outfitted with Kawneer 1600 SS Curtain Wall for aesthetics and high thermal performance.
- Kawneer's 350 Tuffline™ Entrances, ideal for high-traffic applications, were used throughout, including the large pivoting entrance and exit doors.

The certified LEED Gold® stadium is home to the NFL's Minnesota Vikings, hosted the 2018 Super Bowl and will host other marquee events.









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