

# CASE STUDY



Project | *Hočokata Ti*  
Location | *Shakopee, MN*  
Architect | *Worth Group, Denver, CO*  
Contractor | *Architectural Sales of MN, Minneapolis, MN*  
Product | *WoodWorks® Grille*



1 877 276-7876  
[armstrongceilings.com/woodworksgrille](http://armstrongceilings.com/woodworksgrille)

BPCS-6294-1121

## the challenge:

The Mdewakanton Sioux tribe recently opened Hočokata Ti, a new cultural center that provides visitors with an experience that enhances their knowledge of the Dakota people. Architecturally, the tribe wanted the center to have a circular design to reflect their reliance on nature's cycles. Wood was to be a prominent construction material because the tribe wanted to use as many natural elements as possible from their land.

## the solution:

Located in the center of the facility is the "Place of Gathering," a 16,000-square-foot circular space with a large 48-foot-high dome. The space is used for religious services and other cultural activities. The hallways surrounding the Place of Gathering are called the "RiverWalk" and feature the history of the tribe. Chosen for the ceilings in both the Place of Gathering and the RiverWalk were WoodWorks® Grille panels from Armstrong Ceiling & Wall Solutions.

According to Brent Theisen of Architectural Sales of MN, installation of the panels in the dome was extremely challenging because of its complex design. Sixteen pie-shaped sections emanate from the center of the dome. Glue laminated trusses separate the sections longitudinally with five structural members installed horizontally within each section between the trusses.

As Theisen notes, "The dome totals 10,800 square feet of installed ceiling panels, but it was not one big ceiling. Instead, it was 16 sections divided into five sub-sections each or essentially 80 individual small ceilings. In addition, a chevron design in the ceiling required that each panel be perfectly placed and aligned correctly with an adjacent panel."

To meet the requirements for the dome's design, Armstrong manufactured 896 custom WoodWorks Grille panels in 56 different sizes ranging from 43" x 30" to 51" x 39". To facilitate installation, the panels arrived at the jobsite identified by sub-section and numbered as to their position in the sub-section.

Armstrong provided support through its You Inspire™ Solutions Center, a consultative design service that provides project management for ceiling systems from concept to completion. Comprised of specialists with expertise in both design and installation, its sole mission is to partner with architects and contractors to create and install signature ceilings.

Installation of ceilings along the RiverWalk's organic design required hand-cut panels because of the curved nature of the building. Over 900 standard WoodWorks Grille panels totaling 7,600 square feet and measuring 1' x 8' each were installed throughout the hallways.