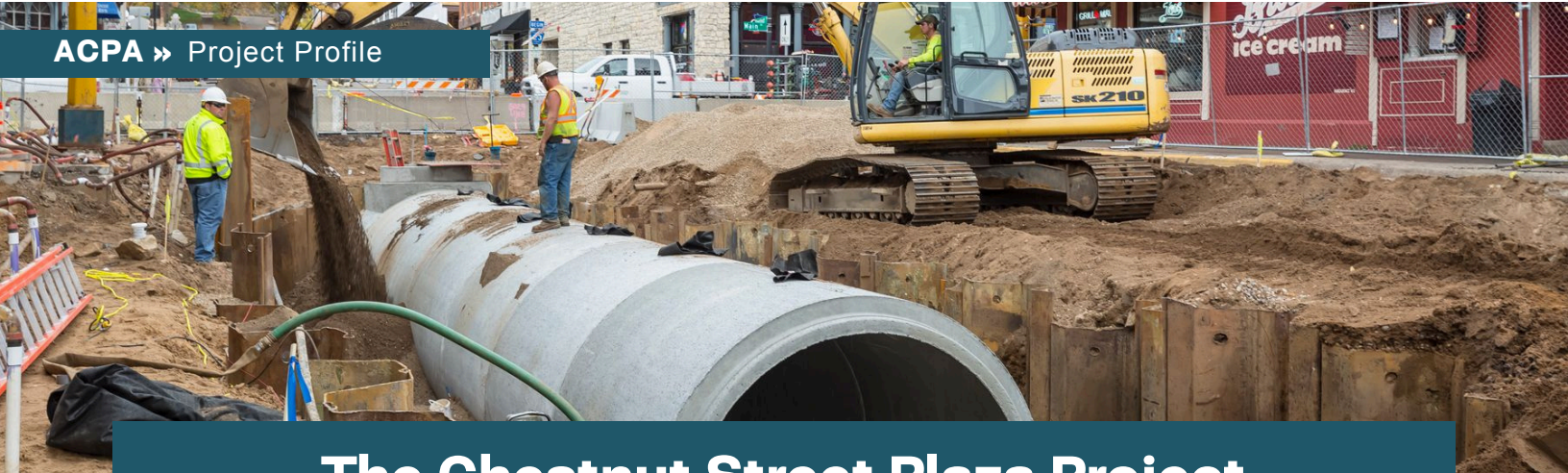


## ACPA » Project Profile



# The Chestnut Street Plaza Project

The Chestnut Street Plaza Project in Stillwater, Minnesota, transformed a congested highway into a vibrant pedestrian plaza, enhancing retail, art, and entertainment opportunities while improving access to the historic Stillwater Lift Bridge. A major challenge was managing stormwater and preventing flooding along the St. Croix River, as the area had experienced frequent stormwater overflows. The solution involved an innovative stormwater system using 96-inch diameter reinforced concrete pipes (RCP), which provided high flow capacity and flood resilience. The RCP system, coupled with an underground detention feature, minimized flooding risks while maintaining pedestrian and emergency vehicle access. Completed in 2023, the project exemplifies urban planning, community engagement, and engineering ingenuity, turning the downtown into a lively hub for locals and visitors alike.

## Flood Control and Innovative Stormwater Management

One major concern for the Chestnut Street Plaza was managing flood risks, given the frequent overflow of the existing stormwater system during storms. Raising the street bed to match sidewalk levels improved pedestrian flow but risked exacerbating flooding. To address this, project leaders implemented an innovative stormwater solution using 96-inch diameter reinforced concrete pipe (RCP), known for its high-flow capacity and durability. This 108-foot-long storm sewer includes an underground detention system to release water downstream gradually, reducing flood potential.

Reinforced concrete pipe offers unique advantages for flood-resilient infrastructure. Its weight resists flotation, which is crucial in flood-prone areas, unlike lighter materials like PVC or HDPE, which can be displaced. Additionally, RCP is environmentally friendly, as aggregates come from local quarries, and steel reinforcements use 93% recycled content. With a service life of 70 to 100 years, concrete pipe requires minimal repairs, is fully recyclable, and integrates easily with future infrastructure expansions, making it a long-term investment.

## Sustainable Construction and Community Access

County Materials manufactured and delivered 150 linear feet of 96-inch RCP, along with catch basins and manholes, to support the project's goals. Construction zones were carefully managed to minimize disruption, ensuring continuous access to local businesses and community events. County Materials' team worked within the plaza's tight construction zones, delivering materials efficiently to keep the project on schedule.

The completed Chestnut Street Plaza is a testament to thoughtful urban planning, community engagement, and engineering innovation. Opened in summer 2023, the plaza has revitalized Stillwater's historic town center, providing a charming destination for shopping, dining, and recreation, all while enhancing flood resilience and preserving public safety.

## Project Profile

**Location**  
Stillwater, MN

**Installation Completed**  
Summer 2023

**Project Owner**  
MnDOT, City of Stillwater

**Contractor**  
TKDA

**ACPA Producer**  
County Materials Corporation

**Engineer/Designer**  
TKDA

» RCP, Stormwater Management, Urban Revitalization