



## 2<sup>nd</sup> Street Bridge

Our nation's infrastructure is a reflection of our shared values as a society. Projects like the Golden Gate Bridge and the Hoover Dam have provided hope and jobs to many people at a critical time in our country's history. Those projects serve critical functions and have endured as icons that are valued by everyone in this great nation.

During the era of mass-expansion in the 1950's and 1960's, we created a vast inventory of roads, bridges, airports and dams. At that time, "form-follows-function" was the mantra and the resulting inventory ignored aesthetics and the visual impact on the surrounding environment. Those impacts have only worsened over time.

Approximately 10 years ago, the City of Austin, Texas began the process of converting a water treatment facility and power plant into an extension of the urban grid. The new Seaholm District extends the urban fabric of downtown Austin along 2<sup>nd</sup> Street and across the Shoal Creek and includes redevelopment of the art deco Seaholm Power Plant into a mixed-use development, the addition of four new city blocks with mixed-use residential along 2<sup>nd</sup> Street and the addition of a new \$20M public library. The extension of 2<sup>nd</sup> Street across the Shoal Creek requires a new traffic and pedestrian bridge and the City decided that the bridge should serve as a visual anchor and compliment the design of the new public library.

The City Planning Department hired a world-class bridge design team to create an iconic form that has become the centerpiece of this vibrant new district. The Bridge Architect and Lead Structural Engineer worked closely with City and multiple stakeholders in a collaborative workshop format to select the bridge type and develop the final details for the project. The result is a bridge with a level of fit-and-finish that is rarely seen on infrastructure projects.

The bridge is a 160 ft. span supported by canted free-standing arches. A trapezoidal steel box serves as the primary structural element for the two travel lanes at the center of the bridge. Wide curved sidewalks whose form mimics the gentle curvature of the arches are cantilevered on each side of the bridge via outriggers. The space between the travel lanes and the sidewalks is open to the creek below, dramatically increasing the amount of natural light underneath the bridge.

Architectural pre-cast panels create a curb and fascia assembly on the leading edge of the bridge. The panels follow the curvature of the sidewalk in plan curve gently in the vertical dimension to create a slender and elegant profile. Additional details including custom stainless steel rails, stone cladding of the abutments, recycled glass pavers and custom traffic rails create a bridge that is beautiful when viewed from every vantage point on the site.

The lighting system for the bridge utilizes LED color changing fixtures that softly illuminate the curvature of the free-standing arches. LED lighting integrated into the railing system washes the sidewalks on the bridge and creates an elegant urban experience.