When the drainage system built in the 1950s and 1960s failed to protect homes and business in a highly populated community on the west side of Reno from flooding caused by a storm in 2014, the City took action. Following comprehensive engineering analysis to confirm shortcomings with the existing drainage, Atkins North America, Inc. designed a robust 5,600-foot stormwater management system using reinforced concrete pipe (RCP) and elliptical reinforced concrete pipe (ERCP) from Rinker Materials® capable of handling future major flood events. Installed by Q&D Construction in the existing infrastructure along Fourth Street and Stoker Avenue, the $5.4 million project was completed on budget and ahead of schedule in August 2019.

In recalling the 2014 storm that sparked one of Reno’s largest infrastructure projects in the past decade, John Flansberg, Director of Reno Public Works said, “That (the storm) caused the intersection to be unavailable for traffic use, and obviously it’s an important corridor for traffic. It brought a lot of sediment and actually inundated a local hotel.” Q&D Construction project manager Daniel March added, “The water was just overrunning people’s driveways, overrunning yards. It’s like there wasn't a drainage system here. It was just a smaller system.”
In addition to RCP and ERCP ranging from 36” to 48”, the new stormwater management system features catch basins and an outlet into the Truckee River. Designed to quickly and efficiently capture and relocate high volumes of stormwater, the system helps minimize potential flood damage from the intersection of Seventh Street and Rey Street and end at the Truckee River at Dickerson Road and Chism Street. The maximum design flow capacity for project was approximately 113 cfs for the 5-year storm with a maximum RCP capacity of 219 cfs. Installing the new stormwater management system in the existing infrastructure saved time and money while limiting disruption to businesses and residents. As an added benefit, the stormwater runoff from I-80 that will be conveyed through the new stormwater management system facilitated a cost-sharing agreement on the project with the Nevada Department of Transportation (NDOT).


According to the City of Reno, “The new improvements will increase capacity to the entire drainage system and provide a direct benefit to the businesses and residents in the watershed, as well as water quality benefits to the Truckee River.”