

WHY REPLACE NORTH CHEYENNE CAÑON BRIDGES?

Safety and Structural Concerns

While all six bridges in the park have been deemed structurally deficient, the three bridges replaced by this project are the three “major” structures. The three to be replaced later are the “minor” structures. The state determines which structures are major or minor based on sizing and volume criteria.

While the structures are currently standing, this project is preventative to ensure as many of the bridges as can be afforded are replaced now and the remaining structures are designed and planned for replacement before failure occurs.

As the number of visitors to North Cheyenne Cañon increases, the infrastructure in the park will face more use over time. Increased traffic could potentially cause more conflicts between vehicles and park users. These factors combined would cause the existing bridges to deteriorate quicker, and replacing them will improve park access in the long term.

Improved Vehicle Access

Traffic and parking have been one of the most mentioned issues throughout the public involvement process of the Master Plan.

Increased traffic congestion in the park impacts both vehicular and pedestrian safety, along with the park experience for users. Parking within North Cheyenne Cañon has also faced challenges in accommodating capacity and a lack of efficiency.

Part of this congestion is due to the width of the existing bridges. Some of the bridges are as narrow as 18-feet, which inhibit two-way traffic.

In addition, vehicles such as emergency vehicles, service vehicles and fire trucks will require increased access to the park as it continues to see more traffic overall.

Keeping with the cross-section set by the master plan, widening the bridges for two-way traffic will allow for fluid traffic movement at all times, and reduce accidents in storm conditions.



Hydraulic Conveyance

In addition to the structural shortcomings, the existing bridges in North Cheyenne Cañon do not provide adequate hydraulic capacity for large rainfall events.

This means only so much water can flow under the bridge at a time. In a flood event, rising water levels due to limited flow capacity could cause overtopping of a bridge.

Replacing the North Cheyenne Cañon bridges to have a larger hydraulic opening will reduce the possibility of overtopping by improving water conveyance, reduce scour, reduce water velocities, and allow for a larger flow capacity.

Construction

There are currently six existing bridges in North Cheyenne Cañon and two additional bridges in the park. The longest bridge span is 36 feet, with an average bridge span of 24 feet. The biggest needs are three major structures: Bridges B, C, and D, which will be the focus of the project.

Disruption to traffic during construction will be reduced by working on three bridges at once.

The bridge replacements will be funded through a state grant, with the City matching funds as well. Construction start date is targeted in Fall 2020.