



SOUTH PRATT PARKWAY BRIDGE REPLACEMENT

Longmont, CO

WHY THIS PROJECT IS RELEVANT

- Geosynthetic Reinforcing System
- Creative construction phasing
- Robust, early planning process
- Extensive public outreach
- Concrete and asphalt replacement

PROJECT SIZE

Earthwork - 15,061 CY
 Retaining Wall - 5924 SF
 Concrete Class D - 1878 CY
 Concrete Sidewalk - 2107 SY
 Curb & Gutter - 3495 LF

INITIAL/FINAL COST

\$6,574,043/\$6,724,217

CHANGE ORDERS

5 owner-initiated
 change orders

CONTRACT SCHEDULE

January 2018-January 2019

ACTUAL SCHEDULE

February 2018-February 2019

Built in the 1970's, the original South Pratt Parkway bridge was too narrow for the present day volumes that cross it daily. Zak Dirt was hired to replace the major bridge structure which also provides pedestrian and cyclist facilities along each side as well as addresses the bridge's ability to withstand the 100-year St. Vrain Creek flood flows.

The project featured unique architectural design features including sun dial construction and decorative concrete. Additionally, one corner of the project required a twenty foot excavation immediately adjacent to a private building. Zak Dirt created a work plan to ensure not only the safety of the building but of the business tenants navigating the surrounding areas.

Special coordination was also needed to replace the entrances, driveways and utilities to businesses along the corridor. Zak Dirt worked directly with business owners to coordinate utility shut-offs and coordinate alternative access plans.

As part of the project Zak Dirt constructed block walls under the bridge using a Geosynthetic Reinforcing System (GRS). This process required an intense quality control program by Zak Dirt to ensure all lifts were completed with the proper care and consistency. This process worked so well that Zak Dirt engineered a system that combined the GRS with a gabion facing to provide temporary phase line shoring for the bridge structure. This system supported the traffic lanes and was over fifteen feet tall.



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REFERENCES

OWNER

Allan Bryning
City of Longmont
303-651-8908

allan.bryning@longmontcolorado.gov

ENGINEER

Lee Kunselman
Atkins
303-221-7275
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SELF PERFORM

73%

PROJECT TEAM

Jesse Sewczak
Dan Sewczak
Nathan Everett
Mike Sewczak

DELIVERY METHOD

Design-Bid-Build requiring heavy
collaboration with design team

NUMBER OF CLAIMS

0

The project budget increased in the form of added work. The City of Longmont added improvements to surrounding areas including parking lot grading, additional structural concrete and extension of a block retaining wall. The project was started late because of delays in the bid process and finished respective to the start date.

Another critical detail of the project was the utility coordination effort required by Zak Dirt. The existing bridge structure was home to a high importance fiber optic duct bank containing 8 utility conduits. Because these lines serviced the near by airport, the conduits could not be disconnected or relocated at any point in the project. Zak Dirt was first tasked with demolishing the old concrete bridge structure while preserving the utilities. Our plan included detailed instructions to demolition operators, strategic saw cuts, and a temporary shoring system to support the fiber optic lines. The bridge was removed with out issue and construction of the new bridge began. The lines were supported throughout construction and required Zak Dirt's haul routes to be amended because the utilities divided the project in half. The lines were permanently incorporated in the new structure by a creative support system. All lines remained intact and undisturbed throughout the multiphase project.