

**27<sup>th</sup> & Fairfield & West 'O' Street Bridges over Salt Creek**  
**LCLC-5231(15), CN 13247**  
**City of Lincoln Project No. 540029**

#### LOCATION

This project would occur within the City of Lincoln in Lancaster County and would involve improvements to the North 27<sup>th</sup> Street and Fairfield Bridge over Salt Creek, located just south of Fairfield Avenue on 27<sup>th</sup> Street, and the West 'O' Street Bridge over Salt Creek, located just east of Sun Valley Boulevard on West O Street. Construction for both proposed projects may begin and/or end approximately 150 feet beyond the ends of the bridges.

#### PURPOSE AND NEED

*Purpose of the project:*

To preserve the transportation system, improve the reliability of the transportation system, and perpetuate the mobility of the traveling public.

*Need for the project:*

The 27<sup>th</sup> and Fairfield bridge over Salt Creek was built in the mid 1980's and is in need of rehabilitation. The existing bridge expansion joints are on top of the back wall and have failed, allowing for road salt and water to seep onto the back wall and abutment bearings. The jersey barrier rail is also showing signs of deterioration. The appropriate pedestrian protection on the west side of the bridge needs to be installed. The northeast corner wing on the abutment needs to be re-built to correct overturning and separation from the abutment, and repair the leaning traffic signal pole.

The 'O' Street bridge over Salt Creek was constructed in mid to late 1990's. Currently the existing approach and paving sections are settling at the grade beam. The settling has created a consistent maintenance issue.

#### SCOPE OF WORK

***N 27<sup>th</sup> St. and Fairfield Bridge Project Location (Bridge Structure U142522535).***

The existing approach roadway on this segment of 27<sup>th</sup> Street consists of four lanes divided by a raised median. The bridge is a 384-foot 4-span steel girder bridge. The abutments are concrete with a back wall design. An unnamed multi-use path along the west side of the bridge connects path segments on the southwest and northeast corners of the bridge.

The improvements at this project location consist of repairs to the existing bridge. Repairs would include removal of the back wall at abutments and replacement with turndown, as well as moving the expansion joint onto the grade beam. Existing grade beams would be removed and replaced on new piling. The northeast abutment wing would be replaced. The bridge rail would be removed and replaced. The bridge approach and paving sections would be removed and replaced. The existing traffic signals at Fairfield and 27<sup>th</sup> Streets, and overhead street lighting on the bridge would be replaced.

Soil disturbance associated with abutment wing reconstruction at the northeast corner of the bridge would extend approximately 75 feet east from the center of the roadway to a depth of approximately 6 feet. Soil disturbance due to the approach and paving sections work would extend approximately 100 to 150 feet on the north and south ends of the bridge to a depth of approximately 2 feet within the existing footprint of the roadway. Soil disturbance for the traffic signal pole foundations would be at the new pole location and extend to approximately 15-feet in depth.

***West 'O' Street Bridge Project Location (Bridge Structure S00245514).***

The existing approach roadway on this segment of 'O' St. consists of four lanes with a flush painted median. The bridge is a 372-foot 3-span steel girder bridge. The Salt Creek Levee Trail (multi-use path) passes under the east end of the bridge, and a side path also follows along the north side of the bridge.

The improvements at this project location consist of repairs to the existing bridge. Repairs would include replacement of grade beams on new piling, removing and replacing the approach and paving sections, and repairing guardrail and pavement adjacent to the project.

Soil disturbance associated with the replacement of grade beams may extend to a depth of 2 feet. Soil disturbance associated with the approach and paving sections work would extend approximately 100 to 150 feet on the east and west ends of the bridge to a depth of approximately 2 feet within the existing footprint of the roadway. Minor soil disturbance to a depth of approximately 2 feet would be required for guardrail replacement.

**TRAFFIC VOLUMES**

<b>27<sup>th</sup> and Fairfield Bridge</b>		
	<b>2017</b>	<b>2037</b>
<b>Average Vehicles Per Day (ADT)</b>	<b>33,740</b>	<b>25,543</b>
<b>% Heavy Trucks</b>	<b>5</b>	<b>5</b>

<b>West 'O' Street Bridge</b>		
	<b>2017</b>	<b>2037</b>
<b>Average Vehicles Per Day (ADT)</b>	<b>24,100</b>	<b>29,505</b>
<b>% Heavy Trucks</b>	<b>5</b>	<b>5</b>

**CONSTRUCTION SCHEDULE**

Construction is anticipated to begin spring of 2018 with completion by the fall of 2018.

**ACCOMMODATION OF TRAFFIC**

The proposed project at both bridge locations would be constructed under traffic with crossovers and head-to-head traffic controlled with approved temporary traffic control. Access to Fairfield Street from 27th Street would be reduced to limit left turning movements onto Fairfield Street during both phases of bridge construction, while two-way traffic on Fairfield Street west of 27th Street would be maintained at all times. Access to adjacent properties would be maintained but may be limited at times due to phasing requirements.

**POTENTIAL IMPACTS**

At the 27th and Fairfield Bridge there would be temporary impacts to the unnamed multi-use trail. During the phase of construction where work would occur on the southbound lanes of 27<sup>th</sup> Street, pedestrians would be detoured by the use of sidewalks along Fairfield Street, 20th Street, U.S. Highway 6 (Cornhusker Highway), and 27th Street. This pedestrian detour would include users of the trail along the Salt Creek levee. No project related improvements would be needed for the 27th Street pedestrian detour. At the West 'O' bridge, pedestrian traffic would be maintained on existing or temporary pavement. Wetland impacts are not anticipated

**RIGHT-OF-WAY**

This project may require the acquisition of additional property rights for temporary easements.



U.S. Department  
of Transportation  
**Federal Highway  
Administration**



#### **ESTIMATED COSTS**

The cost of the proposed project is approximately \$1.7 million and would be derived from federal and City of Lincoln funding sources.

#### **SEND COMMENTS TO**

Comments may be submitted by June 1, 2017 to: Mr. Zach Becker, PE, City of Lincoln Engineering Services, 949 West Bond Street Suite 200, Lincoln, NE 68521, [zbecker@lincoln.ne.gov](mailto:zbecker@lincoln.ne.gov), 402-613-3763.

Information regarding the proposed project will be made available on the Lincoln/Lancaster County website, the day after the meeting at [www.lincoln.ne.gov](http://www.lincoln.ne.gov) by clicking on the link "Keyword Search: bridgerehab". For those without internet access, information may be obtained through the contact above.