



April 23, 2020

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City Engineer
City of Rochelle, IL
417 N 6th St
Rochelle, IL 61068

URETEK USA, Inc. is pleased to present this proposal to The City of Rochelle, IL for bridge approach and roadway leveling, void filling and soil stabilization.

PROBLEM

Dement Road Bridge South Approach over the Union Pacific RR at Riley Creek Rochelle IL. The concrete approach pavement has dropped 3" - 4" +/- near the abutment and at the sleeper slab. This is a two-lane asphalt roadway abutting the concrete approach slabs that have been overlaid with asphalt. Additionally, there are large voids at the abutment wall on both the slope wall (back) side and the (front) highway side. It is Bridge Structure No. 072.6011, built in 2001.

The approach pavement is 30 feet long and 28 feet wide. The City of Rochelle will be responsible to repave with asphalt the highway transition to the Approach across about 30 or more feet of highway. The bridge approach pavement subgrade foundation soils have settled and need to be stabilized, stiffened, densified and have voids filled. The approach pavement dropped and needs to be raised as close as possible to its original design profile. Large voids and undermining of soils are visible beneath the highway at the back and front of abutment wall and the buttress wall. See attached photos. The abutment is on pilings that go down approximately 40 feet. The slope wall stones (small rock) has settled about 1.0' to 1.5'.

ESTIMATED SCOPE OF WORK

URETEK will inject URETEK 486 Star Polymer through tubes into the existing bridge approach pavement base and subbase soils via 7/8" holes to various zones of influence using a 4' grid pattern. The URETEK material expands, void fills, stabilizes and densifies the foundation soils and will raise the dropped approach pavement. URETEK will provide all supervision, labor, equipment, and material to void fill, stabilize, densify and raise the Approach Pavements. The work shall include, injecting in a grid at approximately minus 4.0' and 10.0' from the abutment toward the highway and shoulder pavement. The patterned hole spacing is used to inject the liquid polymer through tubes directly through the approach pavement and into the foundation soils. URETEK will conduct DCP testing to confirm the relative density of the foundation soils and make appropriate changes to injection elevations as needed.

Typically, only one lane of traffic control is needed for the work zone, thus allowing the opposite lane to be open for traffic with the assistance of flaggers. for this project it will be preferred, because of the degree of the settlement that the roadway be closed to allow URETEK to move from lane to lane easily. Note: once we lift the approach, stabilize the subgrade and embankment of the roadway the City of Rochelle will be responsible for the roadway restoration and appurtenances.

URETEK USA will perform the following operations:

1. Profile all lanes of the roadway.
2. Execute Dynamic Cone Penetrometer (DCP) tests for each work area (free of charge) to assess pre-injection soil conditions and confirm the initial injection plan. If testing does show additional levels of injections are needed, URETEK USA will discuss with client prior to proceeding.
3. Drill injection holes on 4' centers and install injection tubes from -3' to -10'.
4. Inject the highly expansive, high strength, lightweight, water-resistant URETEK 486 STAR polymer through the tubes and into the soils beneath the base to fill the voids & stabilize the soils. Injection will continue until 1 mm of movement is detected at the surface of the roadway confirming adequate soil stabilization. Since this polymer is water-resistant, it can be injected into wet soil conditions without compromising the integrity of the polymer. Injection will continue where lift is wanted.
5. Drill out the top 4" of grout injection holes and fill with a non-shrink cementitious grout.
6. Perform final profile of all lanes of the roadway.

ESTIMATED COST

\$7.50 per pound

Location: Dement Rd. Bridge over Union Pacific RR Tracks

GPS: 41.923772, -89.033829

Bridge Approach 30' x 28'

Roadway 70' x 28'

Voids under the approach at the abutment wall

Voids under the bridge deck at the abutment wall

Estimate: 11,400 pounds @ \$7.50/pound = \$85,500

Mobilization = \$5,000

Total Estimate = \$90,500.00

Client will only be invoiced for actual material used.

ITEMS NOT INCLUDED IN QUOTE

Traffic control – joint/crack sealing – bonding/bond participation – sales tax- milling of existing asphalt – temporary asphalt wedge

SCHEDULE

Schedule will be discussed between URETEK USA and client after all paperwork has been approved by both sides. Operations can accommodate day or night/weekday and/or weekend work depending on the client's schedule. Traffic can be returned to the project area after the completion of the injection process and final restoration by the city crews.

WARRANTY

URETEK USA will provide a one-year unconditional warranty against settlement of more than 1/4" of the injected areas. The only exception to the warranty is if the DCP tests reveal problems deeper than the approved injection plan and the client chooses not to address those problems at the time of this project. In the unlikely event that movement of more than 1/4" in the injected areas occurs, URETEK USA will return to inject the affected area to lift to proper grade at no charge to the owner. Since traffic control is not included in this proposal, URETEK USA would require that any traffic control required to perform the warranty work be provided by the owner.

SAFETY

URETEK USA has an impressive safety record, because our people are our most important asset and safety is our top concern. URETEK USA has an extensive safety manual directly pertaining to our polyurethane injection process. URETEK USA has employed an industrial hygienist company to produce a safety report on our production unit, process, and personnel. The report clearly shows on-site safety procedures in using and handling the process chemicals and equipment and is available upon request.

INSURANCE

URETEK USA has insurance to meet the requirements the client may have and the cost is included in this proposal.

MERIT SHOP CONTRACTOR

URETEK USA is a merit shop contractor and all services provided by this proposal will be on a merit shop basis. All reference to labor agreement of any kind, or alluded to, in a principle contract or a sub-contract, are set aside, and not part of this proposal.

Sincerely,

Vince Rizzo

Vince Rizzo

Illinois Manager

URETEK USA, Inc.

708-899-8300

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cc: Dave Crowley, Regional Manager, URETEK USA, Inc.