

PULASKI COUNTY HIGHWAY DEPARTMENT

P.O. Box 97
300 Dakota Road
Villa Ridge, IL 62996

Post Creek Cut-Off Bridge Replacement
Existing Structure #077-3000
Tick Ridge Rd (CH-2, FAS 937)
Section # 12-00071-00-BR

Location:

The project is approximately 4 miles east of Grand Chain, IL on Tick Ridge Rd (FAS 937, CH-2). The existing Structure #077-3000 carries traffic over Post Creek Cut-Off in Pulaski County, IL. The waterway is a direct link to the Ohio River which is less than $\frac{3}{4}$ of a mile downstream.

Project Understanding:

The existing structure (077-3000) consists of a 3 span continuous steel I-beam multi-beam girder system with a cast in place concrete deck supported by concrete abutments on concrete piles and two-column concrete piers with tapered legs, one cross-beam and spread footings without piles. The spans are 85'-4", 108'-10" and 85'-4". Concrete slope-walls and cut-off walls protect the slopes.

The structure was built in 1938, and has surpassed its design life. The structure carries 650 ADT back and forth from Pulaski County to Metropolis, IL and Paducah, KY.

The work consists of all Phase I and Phase II Engineering required to:

- meet all Illinois Department of Transportation (IDOT), Federal Highway Administration (FHWA) and Corp of Engineers (Corp) requirements
- advertise the contract for bids
- allow for successful construction of a new structure.

The majority of funding for construction will be provided by IDOT's Major Bridge Program, and is set for FY2022. Bidding will be accepted through the IDOT bidding process in June 2021. Construction will involve removing the current structure, erecting a new structure, and replacing the approaches. The roadway will be completely closed during bridge construction. Initial planning suggests the best scenario involves replacement of the existing bridge piers, constructing the bridge superstructure with concrete I-beams and a cast in place concrete deck, and preservation of the existing concrete slope-walls for cost savings.

The replacement is approved for a maximum of \$2,491,000 of Illinois Major Bridge Program Funds for construction **and construction engineering**. The total estimate for **construction and construction engineering is \$3,114,000**. With that said, the goal is to complete a high quality project under budget. Illinois Major Bridge Funds will provide funds for 80% of construction and construction engineering. Preliminary Engineering funding is planned to be available FY2019.

Scope:

- Obtain any needed data for Phase I and Phase II Engineering.
- Initiate contact and coordinate with all utilities that will be affected by the project. (The existing structure carries a 6" Ft. Massac Water District water line under the superstructure.)
- Coordinate with all permitting agencies to identify and define requirements.
- Complete all necessary permits.
- Coordinate with IDOT to meet all IDOT requirements.
- Complete all required surveys such as but not limited to: clearance, stream survey, tree survey, right-of-way, topographical, and environmental.
- Conduct "Special Waste Screening."
- Meet all historical requirements in regard to the existing structure.
- Facilitate utility relocations as needed.
- Examine options for 6" water line and make recommendations to County Engineer for approval.
- Facilitate with Ft. Massac Water District best scenario for 6" water line.
- Complete or facilitate completion of the Geotechnical Report.
- Perform legal surveys and develop plats, legal descriptions and title commitments as needed.
- Facilitate acquiring the appropriate right-of-way for the project.
- Study proposed bridge structure's materials in regard to the best combination of economical/ innovative/ and durability aspects for the superstructure, substructure, and approach roadway.
- Present different building material options for the bridge superstructure, substructure, and approach roadways with recommendations to PCHD for County Engineer selection and approval.
- Develop and complete an estimate of cost and time for completion.

- Coordinate a meeting with the public to discuss and inform them of the road closure and schedule of construction.
- Develop and complete design plans and special provisions needed for the successful bidding and construction of the project.
- Provide any necessary technical support for the contractor and construction engineering staff for successful completion of the project.
- Submit monthly invoices after money is available for Preliminary Engineering.
- Monthly email updates to the County Engineer regarding the project status.
- Complete and obtain approval for any other tasks or documentation deemed necessary by IDOT, FHWA, the Corp or PCHD for successful progress and completion of the project.