

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete One Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER

21. TITLE AND LOCATION <i>(City and State)</i> Preliminary Design, Beaver River Bridge Project Pittsburgh, Pennsylvania	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES On-Going	CONSTRUCTION <i>(if applicable)</i>

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER Pennsylvania Turnpike Commission	b. POINT OF CONTACT NAME Mr. Brad Updegrave	d. POINT OF CONTACT TELEPHONE NUMBER 717-939-9551
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24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size and cost)*

AWK is responsible for providing engineering services for preliminary design of the widening and replacement of mainline bridge structures over the Beaver River and SR 0018, the replacement of overhead bridges carrying Homewood Viaduct (T-680) and the Norfolk Southern Railroad, the reconfiguration of the Beaver Valley Interchange, and required realignments of the turnpike mainline. The Beaver River Bridge Project includes the design of eight replacement overhead bridges, a culvert extension, two retaining walls, up to 120-foot high cut slopes at several locations, embankment fills, evaluation of subgrade conditions for pavement design, and new access roads to the eastern and western banks of the Beaver River.

Principal Features of Work:

- a. AWK is providing the following services:
 - A complete geotechnical investigation designed to:
 - Determine the top of footing elevations for existing structures in the project area for which this information cannot be obtained from available drawings.
 - Obtain preliminary information on the depth to rock, and on the characteristics of the strata occurring at and near the top or rock, for each proposed new structure.
 - Obtain soil and rock parameters for use in design of walls, cuts slopes, embankments, temporary shoring and pavement.
 - Full-time inspection of the borings.
 - A Phase I Environmental Site Assessment.
 - A Phase III Environmental Site Assessment of railroad right-of-way.
 - A complete mapping and surveying of the project area, including coordination with railroads to obtain accurate information on track geometry and a hydrographic survey along the proposed new bridge alignment.
 - Geotechnical input for the design for the foundations of the replacement bridges:
 - Bridge No. WB-206 at Milepost T12.58;
 - Bridge No. WB-207 at Milepost T12.63;
 - Bridge No. WB-208 at Milepost T12.67;
 - Bridge No. WB-209 at Milepost T12.83;
 - Bridge No. WB-211 at Milepost T13.21.
 - Geotechnical input for the design for the extension of an existing culvert, WB-212 at Milepost T13.80.
 - Geotechnical input for the design for the foundations of the retaining wall adjacent to T-655 (Foxwood Road).
 - Geotechnical input for the design for the foundations of the retaining wall between EB Mainline and EB deceleration ramp at S.R. 0018.
 - Geotechnical input for the design of the proposed cut slopes and embankments over the following approximate reaches:
 - Sta. 228 to 238: There is a proposed cut up to 60 feet high into an existing cut slope to the north of the turnpike right-of-way in this area.

- Sta. 242 to Sta. 250: This section is an existing full cut, with proposed additional cuts up to 30 feet high to both the north and south.
 - Embankment fills for the WB on and off ramps at the western end of the Beaver River Bridge up to 40 feet high.
 - Sta. 284 to 296, WB: There is a proposed cut up to 120 feet high into an existing cut slope to the north of the turnpike right-of-way in this area.
 - Evaluation of the subgrade conditions for pavement design.
 - Geotechnical input for the design of new access roads to the eastern and western Banks of the Beaver River.
- b. The deliverables under this Project include the following:
- A Problem Statement and Draft Exploration Plan (PSDEP) to support the geotechnical investigation and design of the replacement structures, the new roadway, and cut and fill slopes.
 - Analysis and design for all structures.
 - Geotechnical Engineering Report (GER) to address roadway issues, including cut slope and embankment stability and pavement design, for the entire project.
 - Foundation Investigation Reports for each of the eight structures.
 - Phase I Environmental Site Assessment Report.
 - Phase III Environmental Site Assessment Report of railroad right-of way.



This photo shows an overall view of the existing bridge over Beaver River.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

a	(1) FIRM NAME AWK Consulting Engineers, Inc.	(2) FIRM LOCATION <i>(City and State)</i> Pittsburgh, PA	(3) ROLE Sub-Consultant
b	(1) FIRM NAME Maguire Group	(2) FIRM LOCATION <i>(City and State)</i> Pittsburgh, PA	(3) ROLE Prime Consultant

