

Summary of Proposed Award Evaluation of the Cuyahoga Viaduct

Presented to: Planning &
Development Committee

May 10, 2016

Greater Cleveland Regional Transit Authority

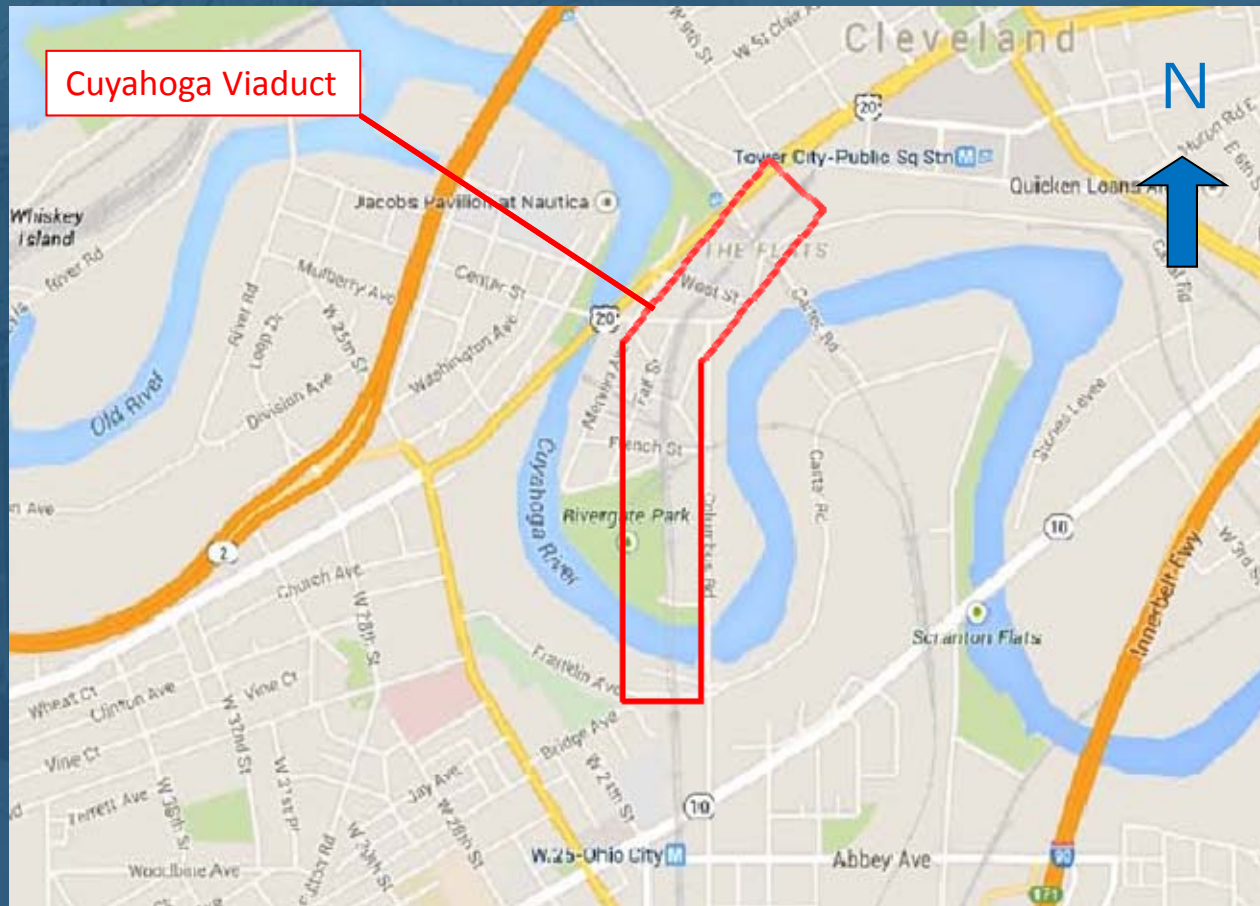


Evaluation of the Cuyahoga Viaduct

- The Viaduct is a critical asset linking East & West rail lines

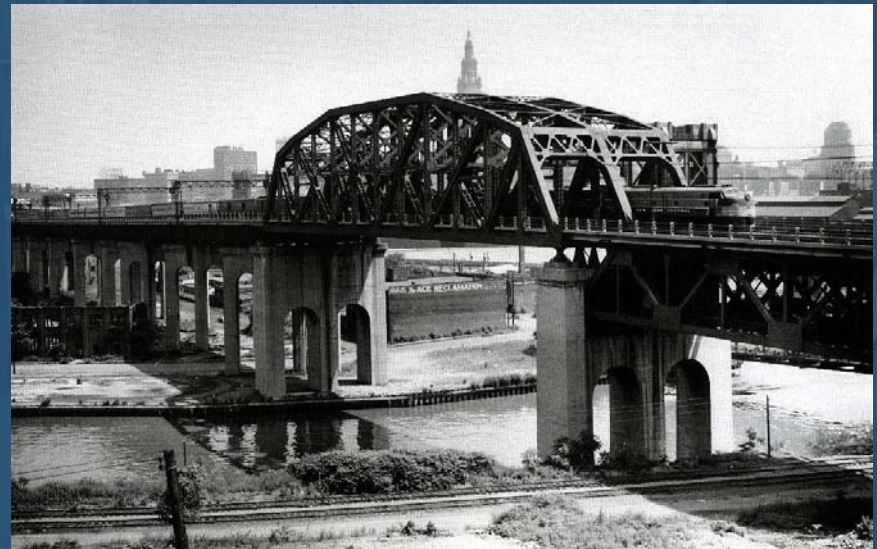


Location Map



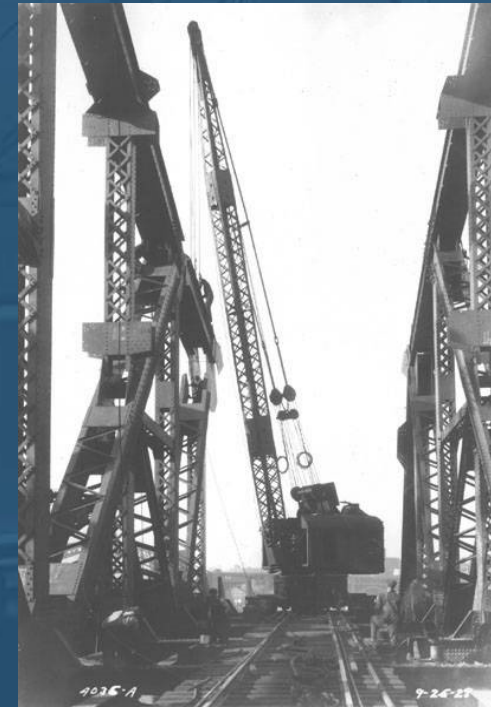
Evaluation of the Cuyahoga Viaduct

- The Viaduct was constructed by The Cleveland Union Terminal Company which was owned by the New York Central Railroad, Big Four and Nickel Plate Railroads



Evaluation of the Cuyahoga Viaduct

- Viaduct construction was completed in 1929



Evaluation of the Cuyahoga Viaduct

- GCRTA's longest (3,395 ft.), tallest (94.5 ft.) bridge
- Bridges rehabilitated in 1999
- 2 of the 31 spans are fracture critical
- Underwater inspection required every 60 months

Evaluation of the Cuyahoga Viaduct

- Concrete spalling from the underside of the deck due to corroding reinforcing steel



Evaluation of the Cuyahoga Viaduct



Evaluation of the Cuyahoga Viaduct



Evaluation of the Cuyahoga Viaduct



Evaluation of the Cuyahoga Viaduct

- To address the immediate need, Project No. 15.53 was awarded in April to remove loose concrete and repair downspouts

Evaluation of the Cuyahoga Viaduct

- However, identifying the cause and extent of the corrosion will determine how the bridge will be repaired for the future

Evaluation of the Cuyahoga Viaduct

- Key Questions:
 - Is corrosion coming from top down or bottom up?
 - Is it chloride, carbonation or water infiltration?
 - Is the chloride or carbonation contamination beyond remedy?
 - Does stray current contribute to the corrosion?
 - Is the deck concrete sound?

Evaluation of the Cuyahoga Viaduct

- Scope of Services:
 - In-depth inspection of fracture critical spans
 - Underwater inspection of Piers 4 and 5
 - Arm's-length inspection of remaining spans
 - Deck condition evaluation
 - Develop a rehabilitation program and cost estimates

Evaluation of the Cuyahoga Viaduct

- Schedule:
 - Inspection will start immediately with NTP
 - Inspection finding submitted 4 months after NTP
 - Recommendations submitted 8 months after NTP

Evaluation of the Cuyahoga Viaduct PROCUREMENT OVERVIEW

- RFP issued June 24, 2015
- Accessed on the GCRTA web site by thirty-one interested parties
- Four firms proposed
- Four firms were interviewed

Evaluation of the Cuyahoga Viaduct

PROCUREMENT OVERVIEW

- Evaluation Panel Members:
 - Engineering
 - Operations
 - Procurement
 - Office of Business Development

Evaluation of the Cuyahoga Viaduct

PROCUREMENT OVERVIEW

- Evaluation Criteria:
 - Project Manager
 - Assigned Staff
 - Past Performance
 - Project Approach
 - Location of Majority of Work
 - DBE Participation

Evaluation of the Cuyahoga Viaduct PROCUREMENT OVERVIEW

- Recommended Vendor:
 - ARCADIS U.S., Inc., Cleveland, Ohio
 - 20% DBE Goal will be met by utilizing:
 - KS Associates, Inc.
 - Denise's Flagging & Construction
 - G & T Associates Inc.

Evaluation of the Cuyahoga Viaduct

PROCUREMENT OVERVIEW

- Firm Experience:

- ARCADIS U.S., Inc. has inspected bridges for ODOT, Norfolk Southern, CSX, and the City of Kent, and has experience working on GCRTA projects
- ARCADIS U.S., Inc. has over fifty years experience
- Infrastructure Engineers, Inc. will perform underwater inspections and has performed over 8,900 underwater inspections

Evaluation of the Cuyahoga Viaduct PROCUREMENT OVERVIEW

- Recommendation:
 - Staff requests that the Planning & Development Committee recommend award to ARCADIS U.S., Inc. for Evaluation of Cuyahoga Viaduct Bridge. The base contract is not to exceed \$349,015.00