

# **Bridge Inspection and Load Rating Services**





AECOM's bridge inspection practice is one of the most distinguished in the United States combining more than 25-years of experience and 200+ certified bridge inspectors and experienced bridge load rating engineers. Our internal policies and procedures for bridge inspection and our quality program are built around our extensive experience and the guidelines established by the AASHTO and FHWA manuals. At AECOM, we pride ourselves on having a client-driven approach. As a fully integrated firm, we connect knowledge and experience across our global network of experts to help our clients solve their most complex challenges. AECOM's North American bridge inspection practice is headquartered out of our suburban Philadelphia, PA office. Based on our bridge inspection experience and our commitment to FHWA's bridge inspection program, the AECOM leadership and staff are the most qualified for NBIS bridge inspection and load rating projects. Our core staff is dedicated exclusively to bridge inspection assignments and has developed a strong confidence and trust partnering with numerous clients on our current and past NBIS bridge inspection assignments throughout the United States.

Our commitment to our bridge inspection practice is evident by our investment in the training required for NBIS certification. With a large pool of qualified staff,

we can easily meet the demands of a large project. In addition, we have developed a solid reputation for delivering the unique aspects of bridge inspection projects efficiently and onschedule. The AECOM team has the proven leadership, experience,

200+ Inspectors

10 SPRAT Certified

Global Expertise

resources, and capacity to successfully deliver important and high visibility projects in a way that will meet our client's goals and expectations.

The following elements distinguish AECOM's Bridge Inspection Practice:

#### Leadership

Brett Canimore, PE, is AECOM's Bridge Inspection Practice Leader for North America. He is a Certified Bridge Inspector with over 30 years of bridge experience and has an extensive resume primarily focused on performing and managing bridge inspection projects. Since 2004, he has managed 48 bridge inspection projects and has been involved in more than 15,000 routine and indepth NBIS inspections. He has a proven track record of delivering quality bridge inspection services to our clients that is founded on communication, attention to detail and partnering with the client leadership.

## **Qualified Staff**

Our NBIS bridge inspection success directly correlates to the commitment and execution of our qualified staff. AECOM offers a qualified staff of knowledgeable professionals specializing in NBIS bridge inspection and load

rating projects that have successfully completed NBIS inspections on thousands of bridges including routine, increased frequency, long span and complex, fracture critical, flood and underwater inspections. The strength of the AECOM team is our bridge inspection team leaders. All assigned Inspection Team Leaders meet the NBIS requirements.

# **Bridge Access Equipment**

The AECOM team will arrange for all access equipment, test equipment and traffic control required to perform the required level of inspection. We will select access equipment that is most economical and least disruptive for the specific structure being inspected.

## **Industrial Rope Access**

AECOM's rope access team was established in 1999 and is one of the most established practices amongst the engineering profession for using industrial rope access for bridge inspections. Over the years our team has evolved as the industry has been standardized.

Currently, AECOM has a group of ten rope access technicians certified by the Society for Professional Rope Access Technicians (SPRAT) including seven licensed professional engineers. All are certified Level I, II or III rope access technicians, and all are also certified bridge inspectors with extensive bridge inspection experience. Our Level III technician will be on-site for the overall supervision of the operation and potential on-site safety rescue. They have solidified their skills on previous inspection projects on a variety of bridge types that include deck trusses, through trusses, girder-floorbeam bridges, cable-stayed bridges and suspension bridges utilizing rope access. Through our experience, AECOM's SPRAT certified team leaders and inspectors know

what equipment and methods are best suited for accessing bridge members. Our inspectors also assist in rigging and setting-up work lines and safety lines under the supervision of our Level III supervisor so that they are continually learning and expanding their skill set. AECOM owns a wide range of rope access gear including thousands of feet of rope, rope protection, bean clamps, steel carabiners, anchor hooks and anchor straps.





# **Inspection Technology**

AECOM uses new and emerging technologies including the use of Unmanned Aerial Systems (UAS) to assist our staff with the inspection of complex bridges. AECOM has a group of pilots and a fleet of UAS, and they have strong relationships with the FAA and a complete understanding of the registration and flight plan process. Our fleet of UAS is equipped with the latest high-resolution cameras and thermographic tools and provides our teams with an additional "tool in the toolbox" and will only be implemented when they provide the best solution for a specific assignment to support our inspection teams.

# **Load Rating Analysis**

AECOM has performed thousands of load rating analyses on all types and sizes of bridges for bridge owners throughout the country. Through this experience our staff has gained a comprehensive understanding of AASHTO standards and specifications. Our load rating engineers also have relevant and recent experience with analyzing gusset plates using the methods in the AASHTO MBE. In addition, our team has current and relevant experience performing load rating analyses using AASHTOWARE Bridge Rating Software (BrR), as well as other industry approved software like MIDAS Civil, BRASS and STAAD. AECOM also uses both Excel and MathCAD to streamline repetitive, supporting calculations for input into load rating software. We also have used advanced finite element software to analyze portions of structures that require a more refined investigation. In addition, our team leaders are experienced in identifying a bridge that will need re-rating due to the deterioration of a load-carrying member, additional dead load, or impact damage.

# **Inspection Reports**

Upon completion of the field inspections, we prepare comprehensive reports detailing the findings of the field investigations. Our reporting will meet the owner's format which often follows the format used in previous cycle inspection reports. As needed, we can include recommendations for required maintenance and repair work, cost estimates for the work.

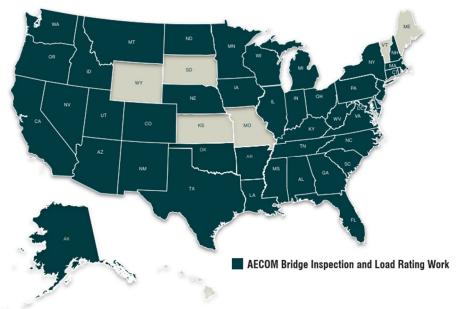
# **Quality Management Program**

AECOM understands that it is our responsibility to provide quality bridge inspection services. We rely on a proven and in-place ISO 9001 certified quality management program to provide safe, quality bridge inspection services on time and within budget. The AECOM Team develops a Quality Assurance/Quality Control plan meeting our client requirements. We will regularly meet with the client Project Manager and bridge staff to discuss the inspection findings and schedule. Prior to submission of the draft and final inspection reports, all documentation will be reviewed for completeness and accuracy and revised when necessary.

AECOM is dedicated to partnering with our client and working together to maintain a safe bridge inventory while always focusing on meeting the schedule and the project budget, while complying with the FHWA's 23 metrics.



# **AECOM**



AECOM's broad resume of bridge inspection and load rating services spans over 43 states, Puerto Rico and Canada and includes bridges of varying material type, size, and complexity.

#### About AECOM

AECOM is the world's trusted infrastructure consulting firm, delivering professional services throughout the project lifecycle – from advisory, planning, design and engineering to program and construction management. On projects spanning transportation, buildings, water, new energy, and the environment, our public- and private-sector clients trust us to solve their most complex challenges. Our teams are driven by a common purpose to deliver a better world through our unrivaled technical and digital expertise, a culture of equity, diversity and inclusion, and a commitment to environmental, social and governance priorities. AECOM is a Fortune 500 firm and its Professional Services business had revenue of \$14.4 billion in fiscal year 2023. See how we are delivering sustainable legacies for generations to come at aecom.com and @AECOM.

Brett Canimore, P.E.

Bridge Inspection Practice Leader - North America
D: 1-610-234-0390 | C: 1-267-718-1023
brett.canimore@aecom.com

