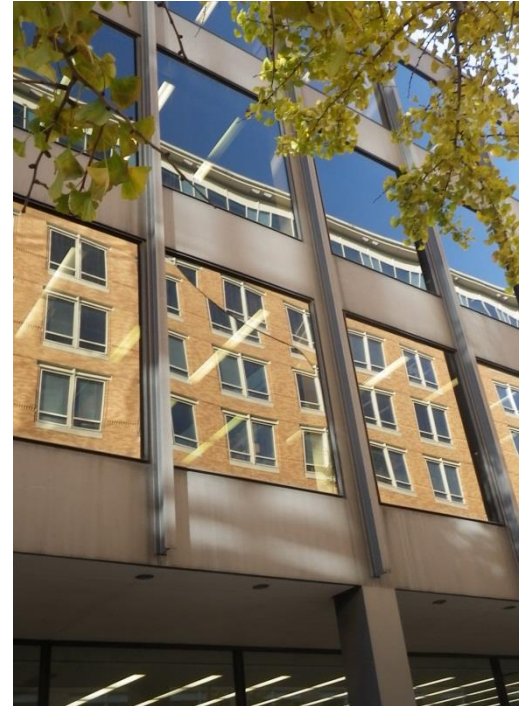




## PROJECT PROFILE

# Martin Luther King, Jr. Memorial Library

Facade Consulting | Washington, D.C.



### CLIENT

The Freelon Group, Inc.

### BACKGROUND

Recognized as the last building designed by Ludwig Mies van der Rohe, the Martin Luther King, Jr. Memorial Library is one of the only examples of modernist architecture in Washington, D.C. Constructed in 1972, the four-story, steel-framed structure features a mostly unadorned steel and glass facade, resting on a series of fully expressed structural steel columns. The Library was designated a historic landmark by the District of Columbia Historic Preservation Review Board in 2007 and was listed on the National Register of Historic Places the same year.

The Freelon Group retained WJE to assist in the development of preservation recommendations for the exterior facades. Specifically, WJE was asked to evaluate the coating applied to the exterior metal elements and to conduct a comprehensive assessment of the existing curtain wall system.



### SOLUTION

To prepare for the visual assessment, WJE reviewed available documents and reports for the Library. WJE preservationists then performed a condition survey of the exterior facades from grade, the main roof level, and swing stages at selected areas of the primary building. The visual survey encompassed the coatings, materials, components, systems, and assemblies of the above-grade exterior walls. To further evaluate portions of the walls, WJE performed field testing of the coatings as well as testing for air and water penetration resistance. During the inspection, WJE also removed paint samples for limited laboratory finishes analysis and conducted a limited investigation of the possible causes of two cracked pavers.



WJE evaluated the conditions of the coatings to identify possible approaches for surface preparation, recoating of the steel exterior elements. WJE also completed a thermal performance evaluation of the existing curtain wall. A series of trial repairs were tested through the installation of mock-ups of overcoating samples. The trials will then be reassessed after winter thermal cycling.