



PROJECT PROFILE

Franklin D. Roosevelt Drive

Roof Rehabilitation Feasibility Study | New York, NY



CLIENT

Daniel Frankfurt, P.C.

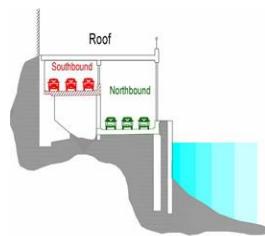
BACKGROUND

FDR Drive is a two-level below-ground expressway alongside the East River in Manhattan. WJE's study involved the area between 56th and 63rd Streets, where FDR Drive is covered by a 27-inch-thick concrete slab green roof, which supports public parks, landscaped grounds, and residential structures.

Daniel Frankfurt, P.C. was retained to rehabilitate FDR Drive, mitigating water leakage through the roof slab, concrete delamination, and spalling that endangered traffic on the roadway below. WJE was retained to evaluate the overall condition of the roof structure and to determine an appropriate waterproofing design to protect the structure with minimal disruption to the surface-level parks and residences.

SOLUTION

After reviewing the existing construction drawings and documentation, WJE engineers inspected various surface rooftop areas and the underside of the structural roof slab to determine the existing conditions of the waterproofing membrane and roofing structure. Core samples were removed for testing.



Based on the inspection, WJE determined that a roof rehabilitation was feasible. The engineers reviewed previously proposed repair materials and systems and then investigated alternative rehabilitation options, ultimately recommending a phased approach to address a variety of conditions present in the existing roof structure. WJE's proposed repairs included a multiple pipe sub-drain and collector system to accommodate a variety of circumstances presented by uses of the roof, while improving overall drainage. WJE also recommended a new waterproofing system that included an adhered, reinforced hot-applied rubberized asphalt membrane.

