



Michigan Plaza serves 2 office buildings constructed in 1981 and 1984. The original plaza consisted of a cast-in-place concrete topping slab with exposed aggregate, a layer of rigid insulation, and a fluid-applied waterproofing membrane over a cast-in-place concrete slab. Occupied commercial spaces located below the plaza had reported water infiltration. In addition to addressing water leakage issues, the owners desired to renovate the existing plaza to provide for better amenity spaces and direct access to Lake Street to the south.

A well-respected architectural firm was retained to develop a plan for renovating the plaza to include new outdoor spaces, planters, and street access. BTC was retained by the architect-of-record to assist in the design of a new waterproofing system.

Prior to beginning the design phase, BTC performed an investigation that included several exploratory openings to investigate the existing conditions of the plaza deck assembly. Through the exploratory openings, the existing conditions of the plaza were confirmed, and several design challenges were noted. These design challenges included inadequate drainage slope on the existing structural slab, choosing a suitable waterproofing membrane given the logistical limitations of the project, ensuring energy code insulation requirements would be met, replacing an existing skylight with a new roof, choosing a new wearing surface, and designing expansion joints for multiple locations. BTC worked collaboratively with the design team to select materials and systems for the plaza renovations.

Assistance in construction contract administration during the construction phase was also provided by BTC to ensure repairs were performed in accordance with the design. The construction phase brought several unique challenges, including scheduling and sequencing of work, site access, cold weather limitations, and quality control of the new waterproofing systems.

Project Name:
Design Assistance
Michigan Plaza

Project Location:
Chicago, Illinois

Client:
Unavailable

Approximate Construction Cost:
Unavailable

Year Completed:
2021

Nature of Services:
Evaluation of Plaza Waterproofing,
Repair Design, Construction Phase
Services

