



# Project Profile



100 East Huron Condominiums is 50-story building. The residential portion of the building extends from Floors 9 through 50. The residential portions of the building include several terraces and roofs. There are 3 roof sections on Floor 51. The main roof on Floor 51 consists of a penthouse structure and several large mechanical equipment units. Floor 51 also includes a north and south roof. Four lower roofs are located on Floor 40 and Floor 11. These roofs are used as private outdoor terraces for the unit owners located on those floors.

All of the subject roof assemblies consisted of a cast-in-place concrete roof slab, a hot rubberized asphalt waterproofing membrane, a drainage mat, and a cast-in-place concrete topping slab. Due to a few prior leaks, a traffic-bearing membrane (TBM) had been applied over the concrete topping slab.

BTC was originally retained to evaluate localized blistering and peeling of the TBM, and to present recommendations for repair/replacement. BTC's investigation included bond testing on the TBM, and evaluation of moisture vapor emission rates through the surface of the topping. During our evaluation, deterioration of the concrete walls adjacent to several roofs, and concrete support pedestals below rooftop equipment was also noted. BTC developed several repair alternatives for the Association's consideration. Subsequently, BTC was retained to design repairs to address the concrete issues, and localized patching of the TBM.

BTC also provided bidding assistance and construction phase services during repairs. The scope of repairs included concrete patching, crack repairs, repair of equipment support pedestals, concrete coating, and localized patching of the TBM. A waterproof membrane was also applied to top surfaces of parapet walls and sills.

## **Project Name:**

*Concrete Rooftop Repairs at 100 East Huron Condominiums*

## **Project Location:**

*100 East Huron Street  
Chicago, Illinois 60611*

## **Client:**

*100 East Huron Condominium  
Association  
100 East Huron Street  
Chicago, Illinois 60611*

## **Approximate Construction Cost:**

*\$127,000*

## **Year Completed:**

*2013*

## **Nature of Services:**

*Evaluation of Waterproofing  
Membrane Failure, Design of concrete  
repairs, bidding assistance, and  
construction phase services*

