



1620 South Michigan Avenue is a 12-story tall, concrete frame building with 249 residential units. In addition to the residential units, 4 commercial retail spaces are located on the street level. The building is “L” shaped in plan.

The building construction primarily consists of cast-in-place concrete with post-tensioned floor slabs. In many areas, the floor slabs extend beyond the building facade to form balconies. The balcony railings consist of aluminum tube frames with glass panels. The railing vertical posts were set into sleeves that were cored through the concrete slabs after their initial construction. The sleeves were subsequently filled with a cementitious material. The entire top surfaces of the balconies were then covered with a traffic-bearing membrane (TBM).

A few years after the initial construction, BTC performed a peer review of a transitional study performed by others. BTC’s peer review revealed many deficiencies. Some of the most significant deficiencies included deteriorated balcony slabs around railing post penetrations, spalled post-tensioning anchor patches, cracking of concrete, and localized failure of balcony TBM.

BTC was subsequently retained to design the implementation of a repair and maintenance program to address balcony railing posts, balcony TBM, sealant joints around balcony patio doors, cracked masonry, and other facade related issues. BTC developed an innovative repair detail for the most extensively deteriorated balcony railing posts which included slight modification of the existing railing posts, and a stainless steel post insert to provide for a structural connection between the slabs and the posts.

BTC’s scope of work also included bidding assistance to vet qualified contractors, and construction phase services.

Project Name:

*Facade and Balcony Repairs
1620 South Michigan Avenue
Condominiums*

Project Location:

*1620 South Michigan Avenue
Chicago, Illinois*

Client:

*1620 South Michigan Avenue
Condominium Association
1620 South Michigan Avenue
Chicago, Illinois 60616*

Construction Cost:

\$740,399

Year Completed:

2015

Nature of Services:

Evaluation, Repair Design, Bidding Assistance, and Construction Phase Services

