
LAWRENCE AVE
IRVING PARK RD
BELMONT AVE
FULLERTON DR
NORTH AVE
CHICAGO AVE
MADISON ST
EISENHOWER EXPY
ROOSEVELT RD
CERMAK RD
31ST ST
PERSHING RD
47TH ST
GARFIELD BLVD
63RD ST
71ST ST
79TH ST
LAKE SHORE DR
HALSTED ST
KENNEDY EXPY
ASHLAND AVE
STATE ST
DAN RYAN EXPY
COTTAGE GROVE AVE
55TH ST
CHICAGO SKYWAY EXPY
STONY ISLAND AVE
YATES BLVD
Montrose (North) *
Montrose to Irving
Irving to Belmont *
Belmont Harbor Peninsula *
Belmont to Diversey (North) *
Belmont to Diversey (South) *
Diversey Revetment *
Diversey to Fullerton *
Fullerton/Theater on the Lake
Solidarity Drive *
I-55 to 30th Street *
31st Street Beach Stabilization *
31st to 33rd Street *
33rd to 37th Street *
37th to 40th Street *
40th to 41st Street *
41st to 43rd Street *
43rd to 45th Street *
45th to 51st Street
51st to 54th Street *
54th to 56th Street
56th to 57th Street *
SWPP Breakwater *
CHICAGO SHORELINE PROTECTION PROJECT
Contracts Administered by:
City of Chicago and Chicago Park District
United States Army Corps of Engineers
* - Completed Project
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Shoreline Protection Project Overview

Project: Chicago Shoreline Protection Project (Interim III)
Authorization: Water Resources Development Act of 1996 (Public Law 104-303)
Type: Shoreline Protection/Flood and Storm Damage Reduction–Capital Construction
Federal Sponsor: United States Army Corps of Engineers
State Cooperating Agency: Illinois Department of Natural Resources
Local Sponsors: City of Chicago Department of Transportation, Chicago Park District

Chicago's existing shoreline protection structures were built between 1910 and 1931. Known as revetments, the shoreline protection structures consisted of wood pile cribs filled with stones in the shape of steps. In the 1950s, the wood piles began collapsing, leaving the structures and parkland to erode and wash away. In 1964, the year when Chicago recorded the all-time lowest water levels on Lake Michigan, the wood piles became exposed and started rotting, further increasing the erosion process.

Photo of construction at 39th Street (2003)

Due to their age and deteriorated condition, these structures no longer provide adequate protection for Lake Shore Drive, a Federal highway adjacent to this shoreline, and other public facilities. This threat of damage prompted Congress in 1974 to direct the U.S. Army Corps of Engineers to investigate these and related erosion problems along the entire Illinois Lake Michigan shoreline.

Photo of construction at 51st Street (2000)

As cooperating agencies, the City of Chicago and the Chicago Park District worked with the Chicago District of the U.S. Army Corps of Engineers on the Feasibility Study which was used to determine that Federal assistance should be provided to protect the shores of Lake Michigan from future storm damage and erosion. The final Feasibility Report and recommended plan for reconstruction was presented by the Army Corps of Engineers to Congress in 1994. From this report, the eight most critical miles of the lakefront were designated for reconstruction.

The project areas are broken up into "reaches," each reach encompassing different sections of the shoreline. They are:

- Reach 2–step stone revetment reconstruction in the area from Montrose to Fullerton Avenue
- Reach 2F–breakwater and beach nourishment at Fullerton Avenue to prevent flooding of the Fullerton Avenue exit and entrance ramps to Lake Shore Drive
- Reach 3–step stone revetment reconstruction at Solidarity Drive
- Reach 4–step stone revetment reconstruction from 23rd Street to 57th Street alongside Lake Shore Drive
- Reach 5–breakwater reconstruction protecting the South Water Purification Plant

In 1996 Congress authorized Federal funds to be used for reconstructing the eight miles of the Chicago shoreline and a breakwater that protects the City's South Water Purification Plant. The total cost of the project is estimated at approximately $380 million. This amount is cost shared among the U.S. Army Corps of Engineers the City of Chicago, the Chicago Park District, and the Illinois Department of Natural Resources.

The preferred design of the revetment is vertical steel sheet piles to replace the damaged wood piles, and concrete steps and promenade to replace the existing stones. This design is called a concrete stepped revetment. This type of revetment design maintains safe access to the shoreline while preserving its historical and aesthetic value. At several project segments, the design also incorporates reuse of salvaged stones from the failed revetment.

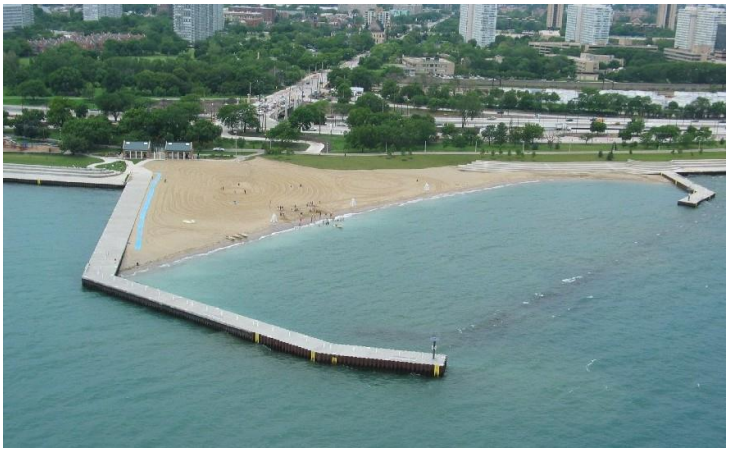

Photo of Completed 31st Street Beach (2003)

The reconstruction does not consist entirely of concrete stepped revetments. Some locations such as Fullerton Avenue, 39th Street and the 49th Street Morgan Shoal provide great opportunities not only to expand the lakefront and create parkland but also to diversify amenities. At other locations, such as 31st Street and 40th Street, where the lake is shallow, beaches are constructed in lieu of revetments. Beaches offer the same level of protection as revetments, while providing a (see photo of 31st Street Beach above).

Photo of Completed Belmont Harbor (2003)

To date, approximately 7 miles of shoreline has been completed (80% of project). Project completion is anticipated in 2018.