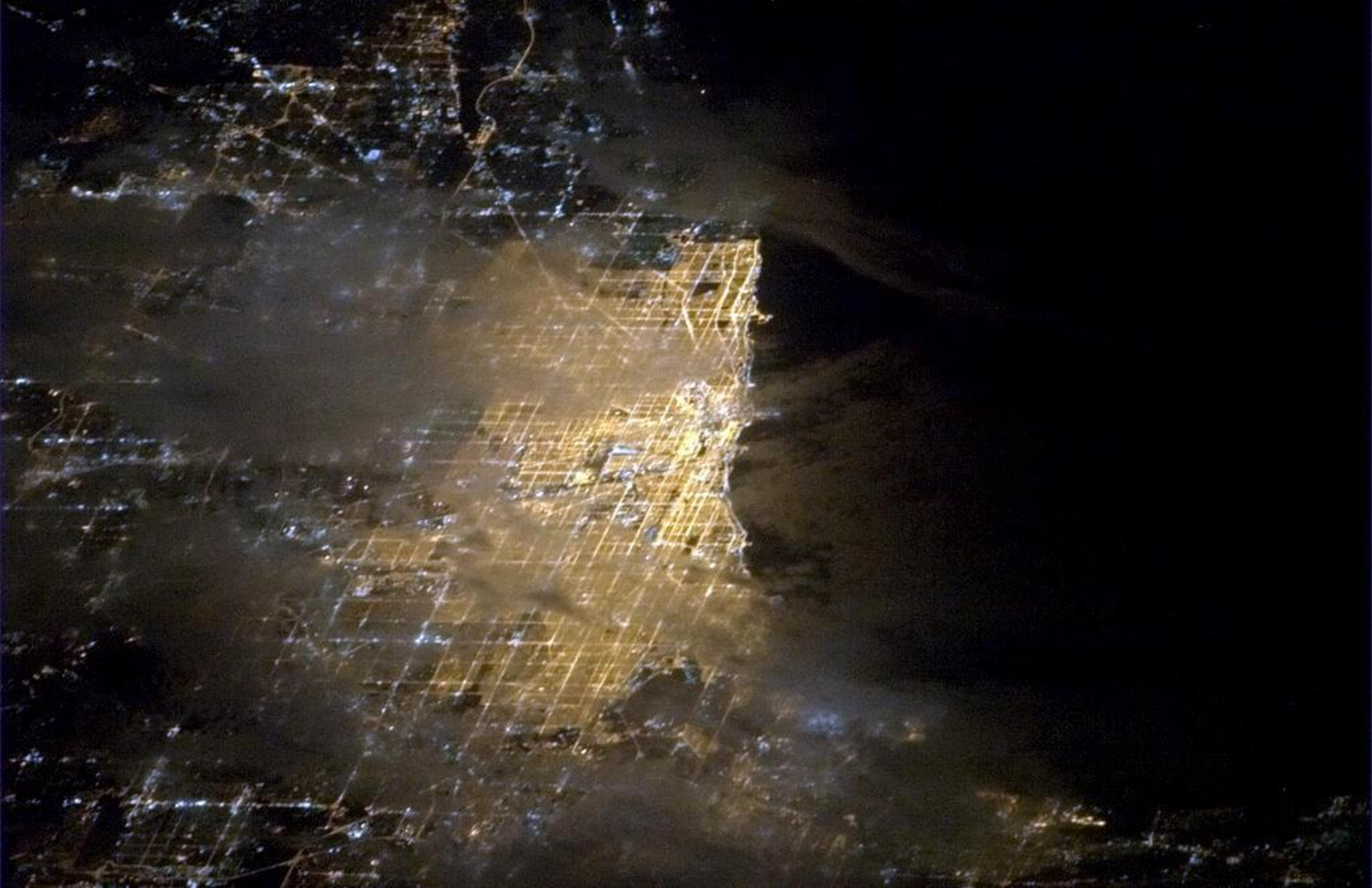


ross **b**arney **a**rchitects

rb arc









Elevator



buses

Howard
Linden
Kimball

95th/Dan Ryan
Loop
Loop





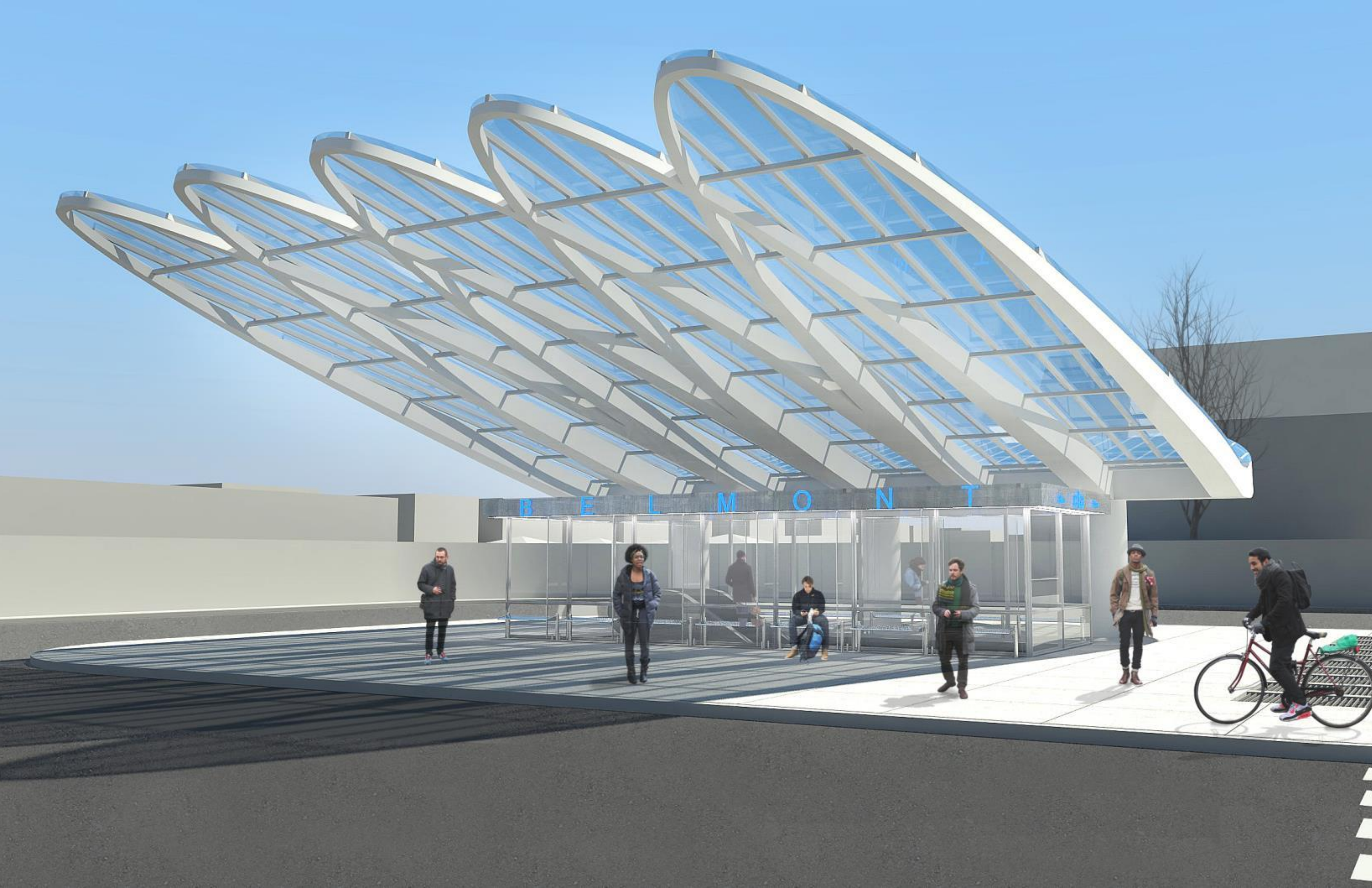




← Ashland/63rd Board here Harlem →
Cottage Grove

58°F
TUESDAY



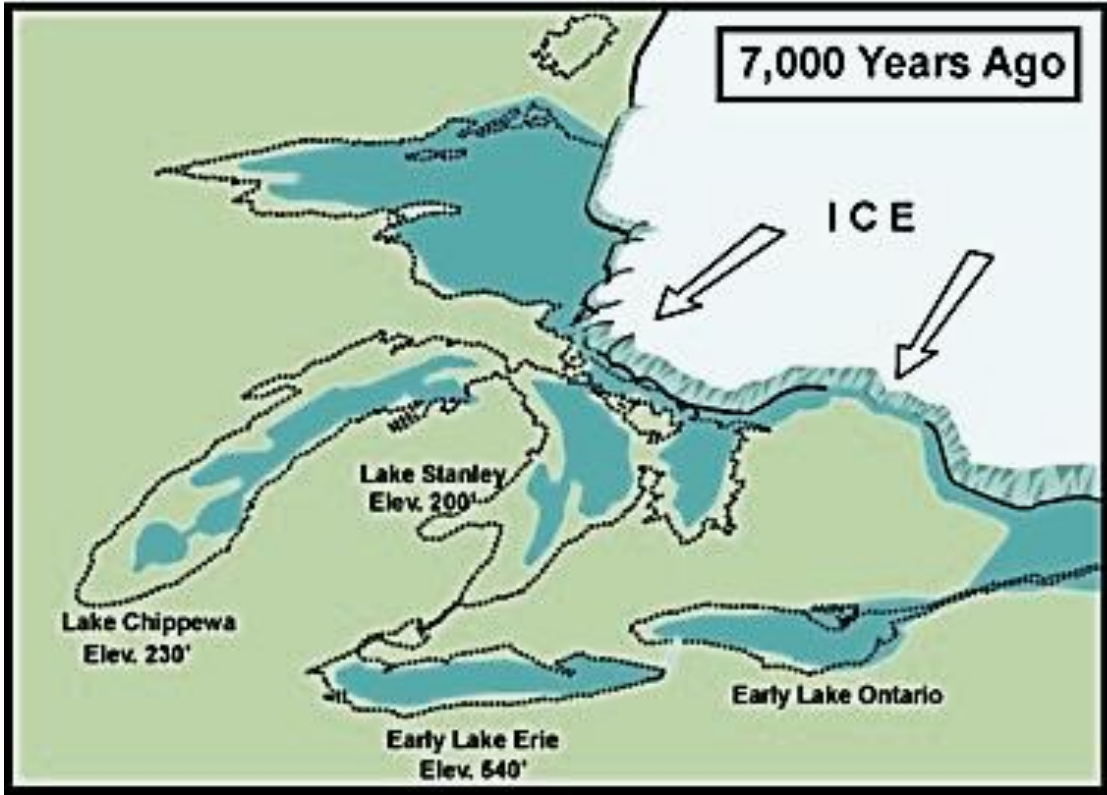
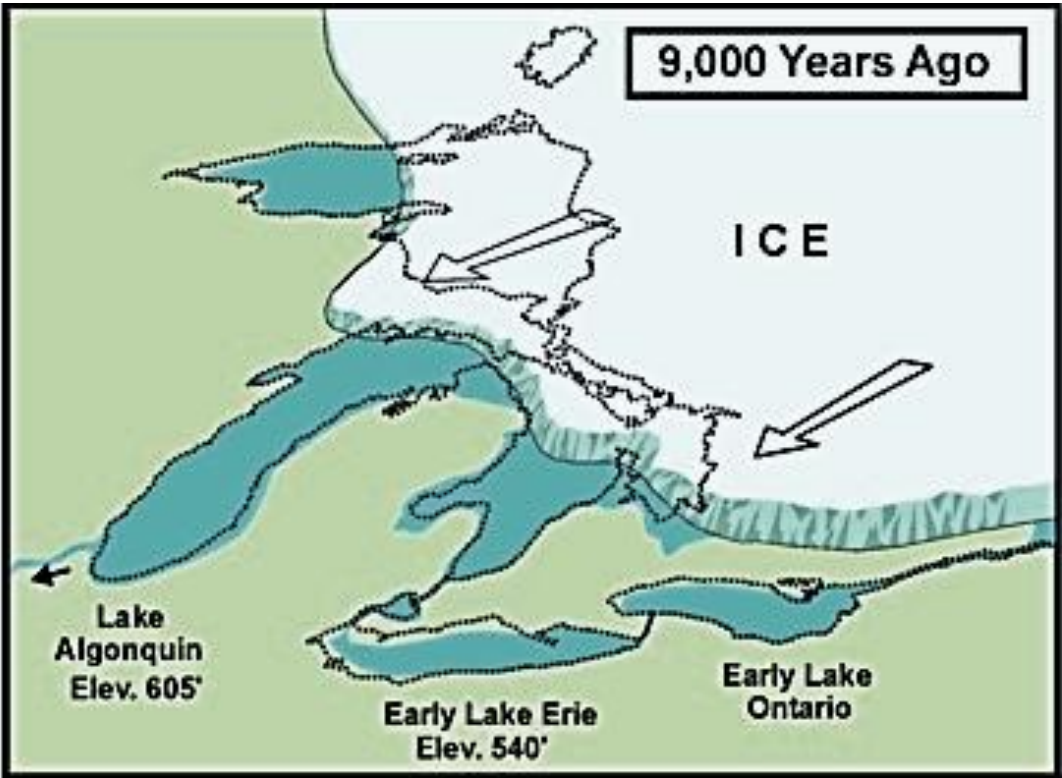
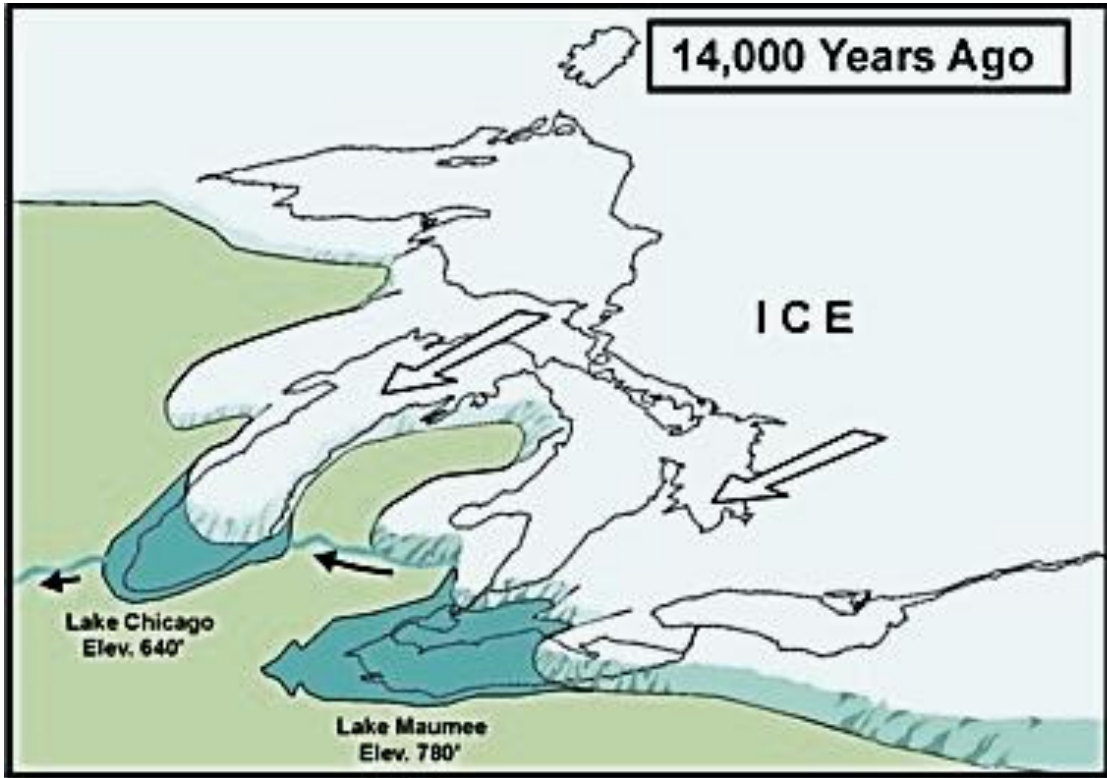








HISTORY OF THE CHICAGO RIVER



France

Great Britain

Territories ceded by France to Great Britain by the Treaty of Utrecht in 1713

Spain

○

Cities

✦

Forts

Pacific Ocean

Hudson Bay

CANADA

Newfoundland

ACADIA

Atlantic Ocean

Gulf of Mexico

Fort Bourbon
Fort Dauphin
Fort La Reine

Upper Country

Fort Saint-Pierre
Fort Michillimakinac
Fort Beauharnois

Upper Louisiana
(Illinois Country)

Fort Orléans
Fort Saint-Louis
Fort de Chartres

LOUISIANA

Lower Louisiana

Fort Rosalie
Baton-Rouge (1720)
La Nouvelle-Orléans (1718)
Mobile (1702)
Biloxi (1699)

Tadoussac (1600)
Québec (1608)
Trois-Rivières (1634)
Montréal (1642)

Fort Frontenac
Fort Duquesne

New York (1626)
Philadelphia (1681)
Baltimore (1729)

Charleston (1680)
Savannah (1733)

Plaisance (1662)
Louisbourg (1719)
Port-Royal (1605)

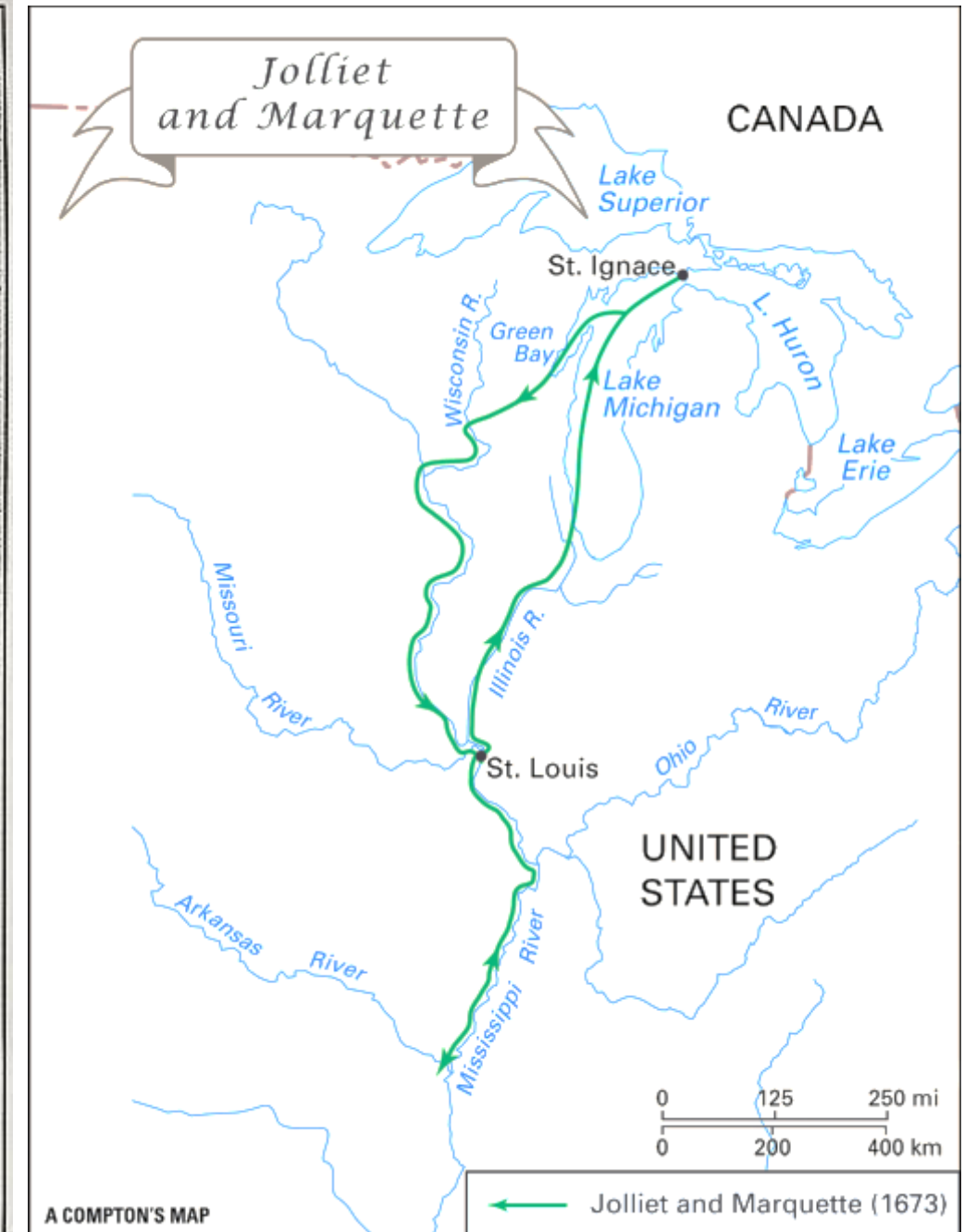
Fort Richelieu
Fort Chambly

Boston (1630)

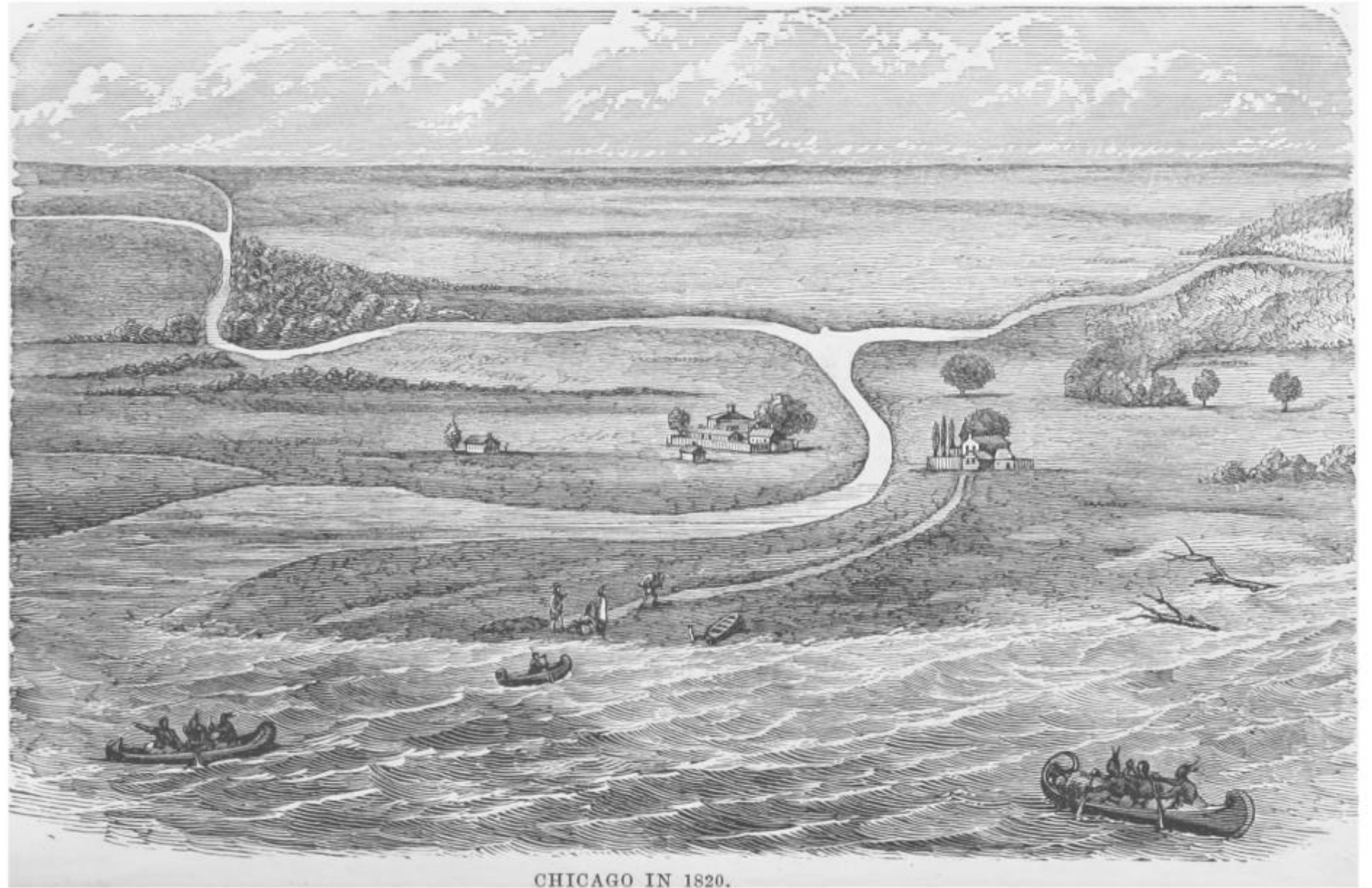
HISTORY OF THE CHICAGO RIVER 1670



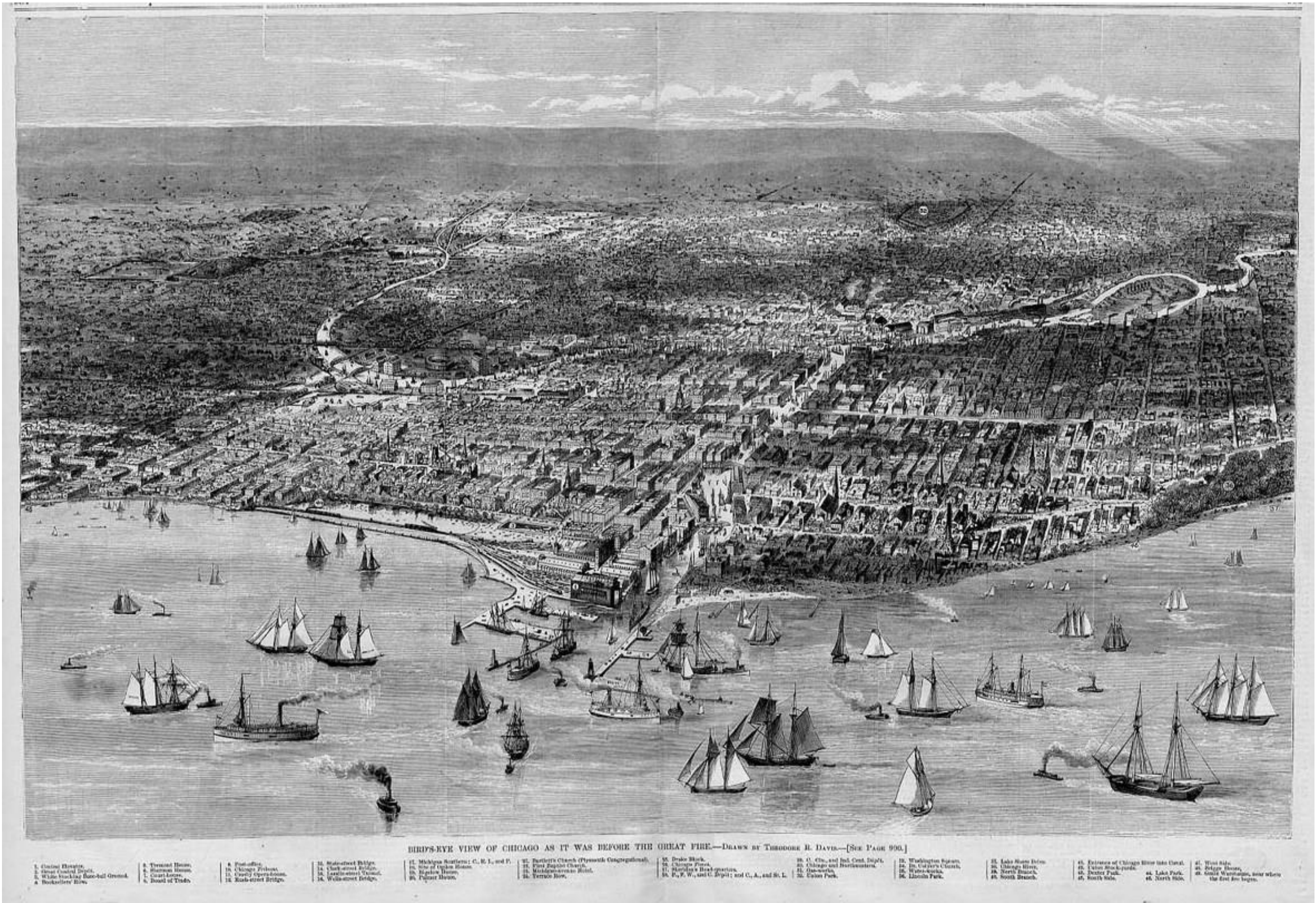
MARQUETTE AND JOLIET DISCOVERING THE MISSISSIPPI RIVER



HISTORY OF THE CHICAGO RIVER | 1820



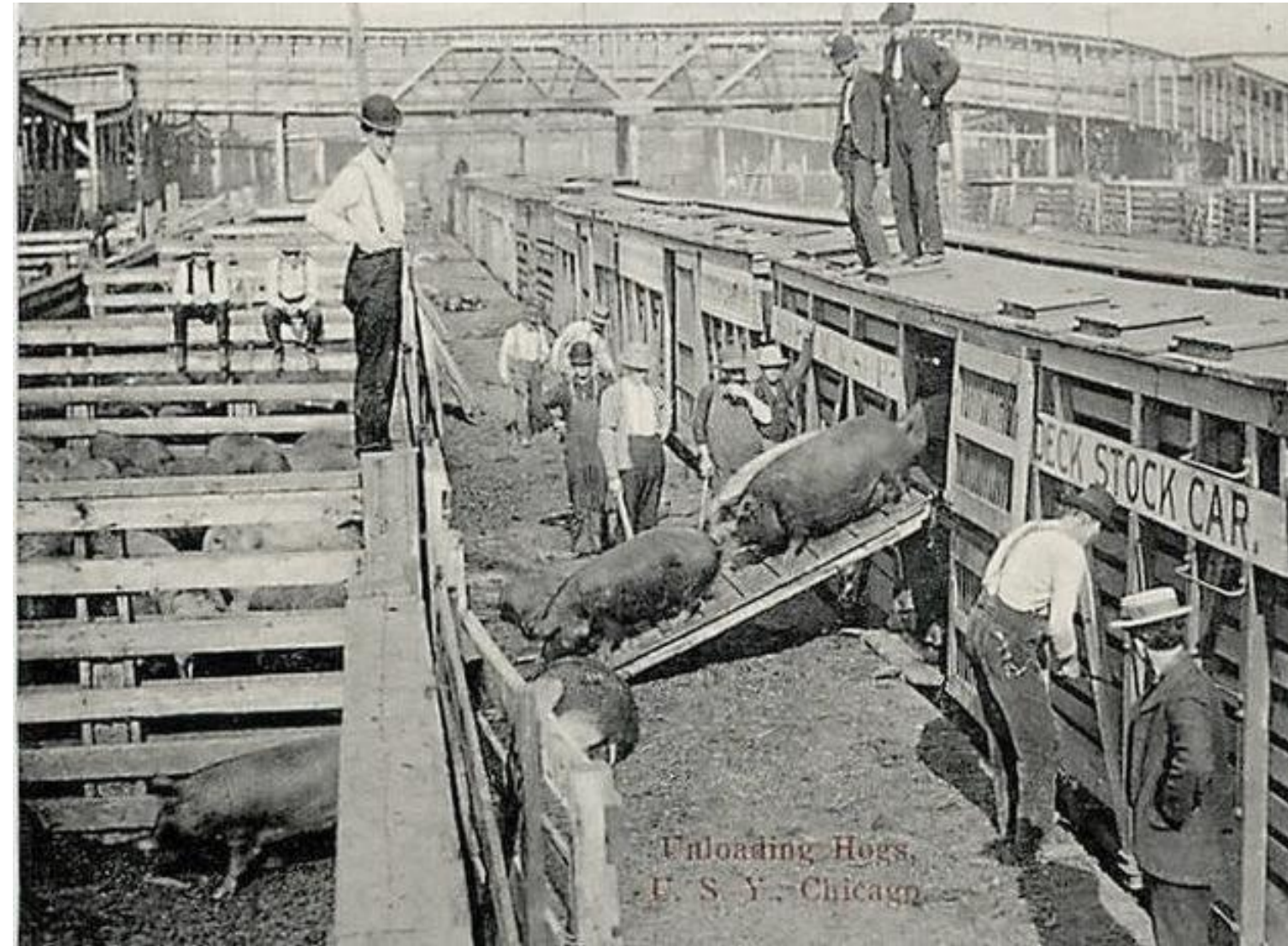
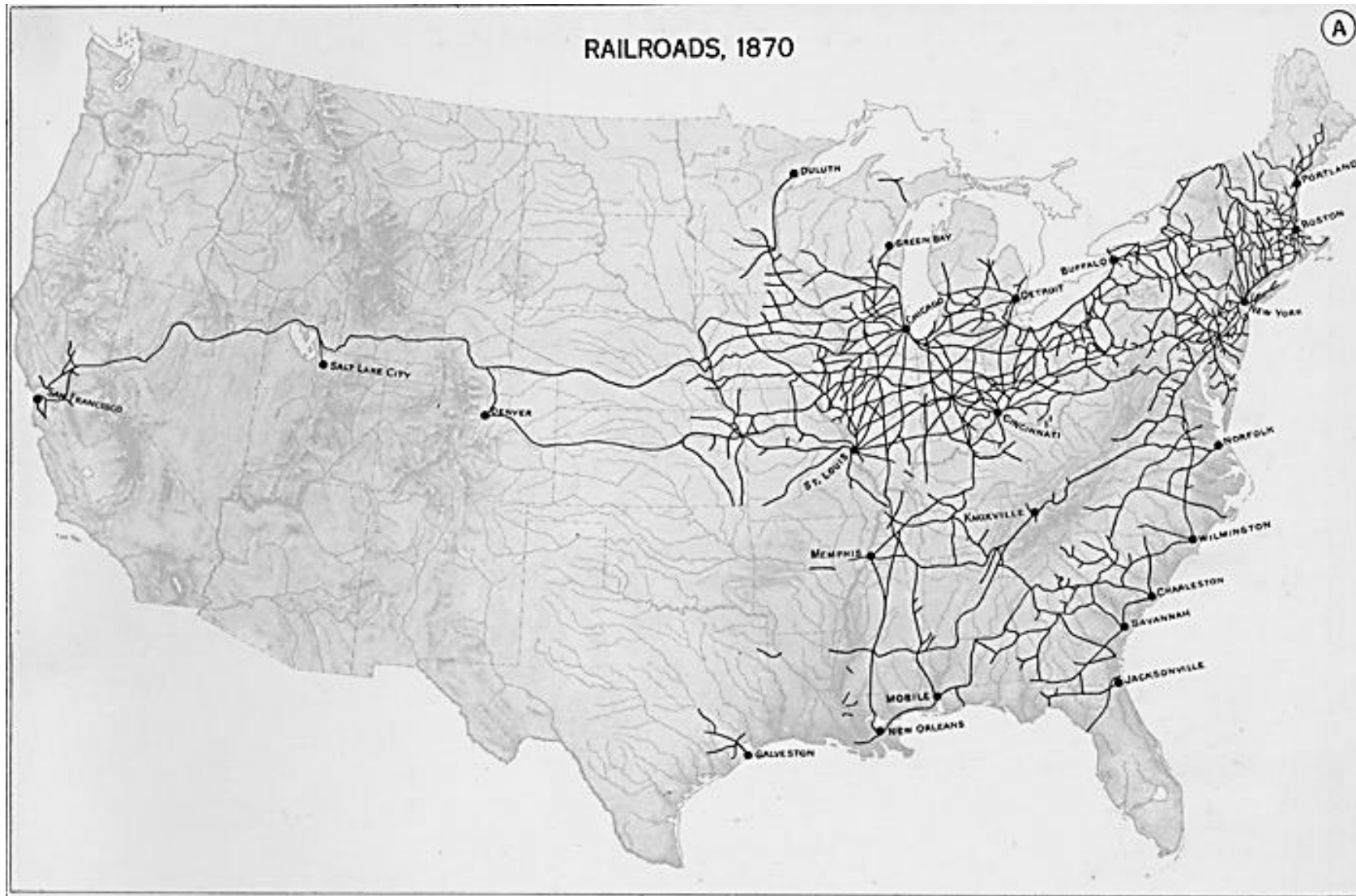
HISTORY OF THE CHICAGO RIVER | 1853



HISTORY OF THE CHICAGO RIVER | 1870-1885



HISTORY OF THE CHICAGO RIVER | 1870



HISTORY OF THE CHICAGO RIVER | 1909



Paris Expo 1900

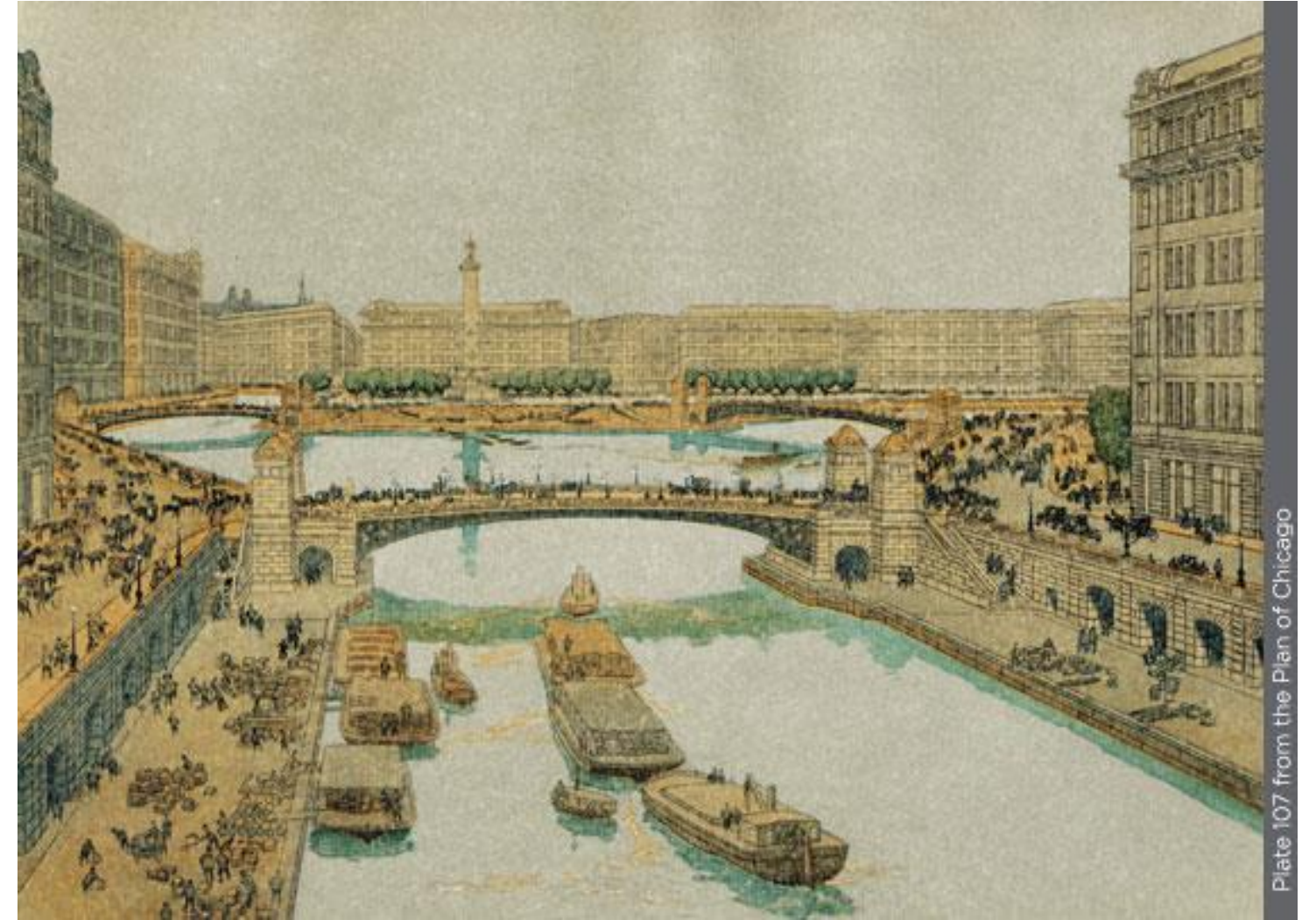
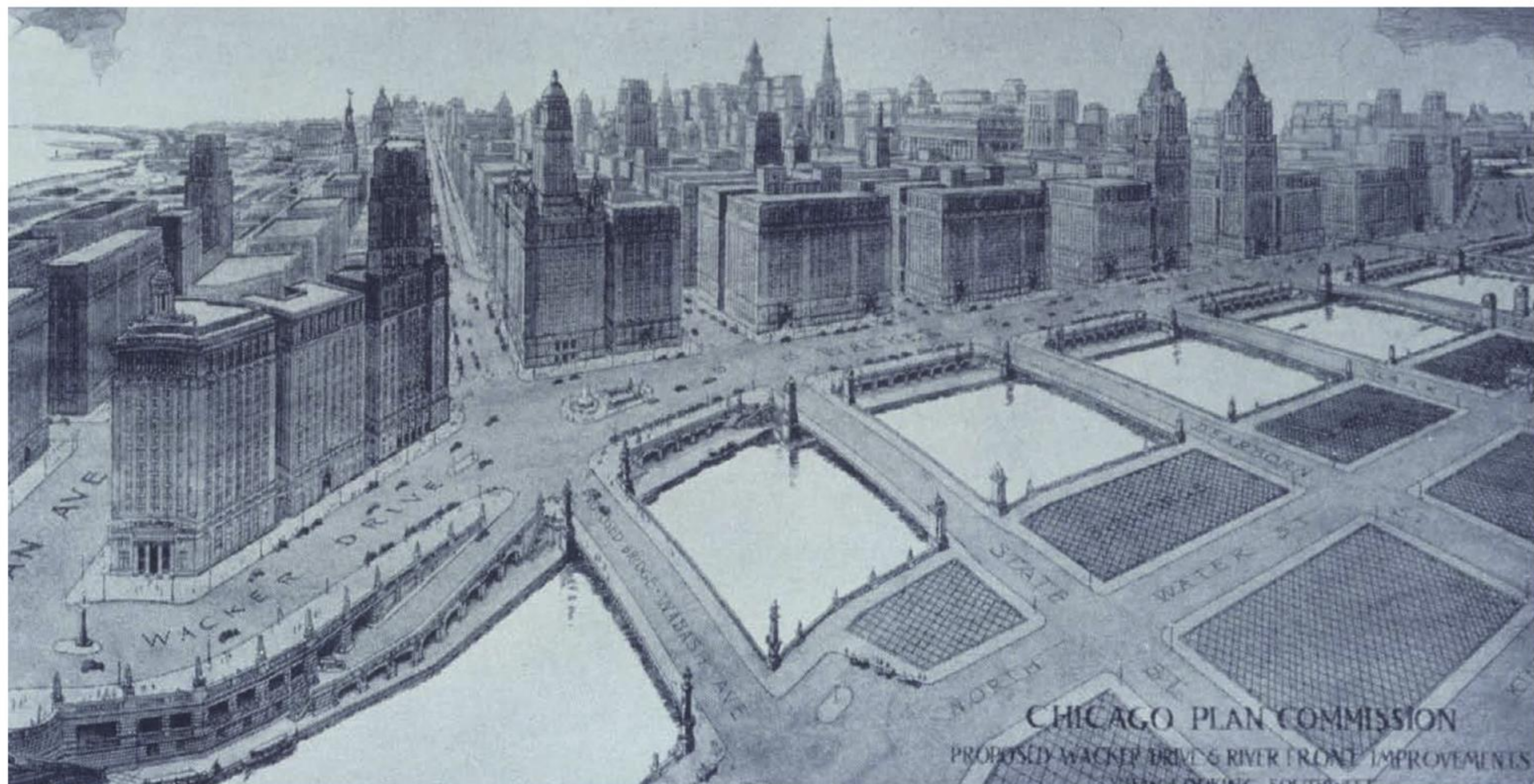


Plate 107 from the Plan of Chicago



CHICAGO PLAN COMMISSION
PROPOSED WACKER DRIVE & RIVER FRONT IMPROVEMENTS
VIEW LOOKING SOUTHWEST





Phase 03, 2016

Phase 02, 2015

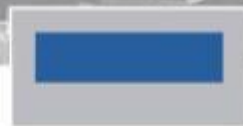
Phase 01, 2005 & 2009



Riverbank



Jetty



Water Plaza



River Theater



Cove



Marina Plaza



Wabash Plaza

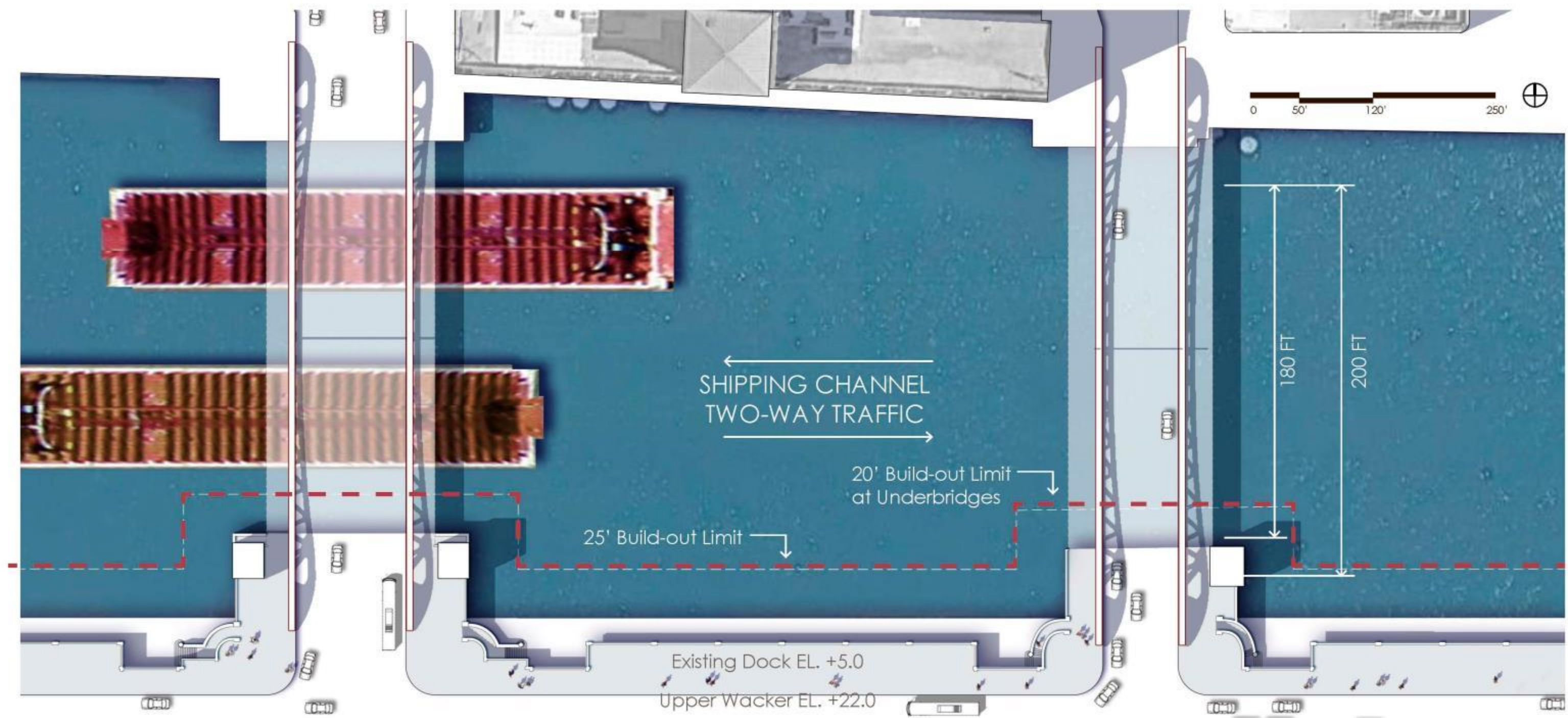


Bridgehouse
Museum Plaza



Michigan
Avenue Plaza

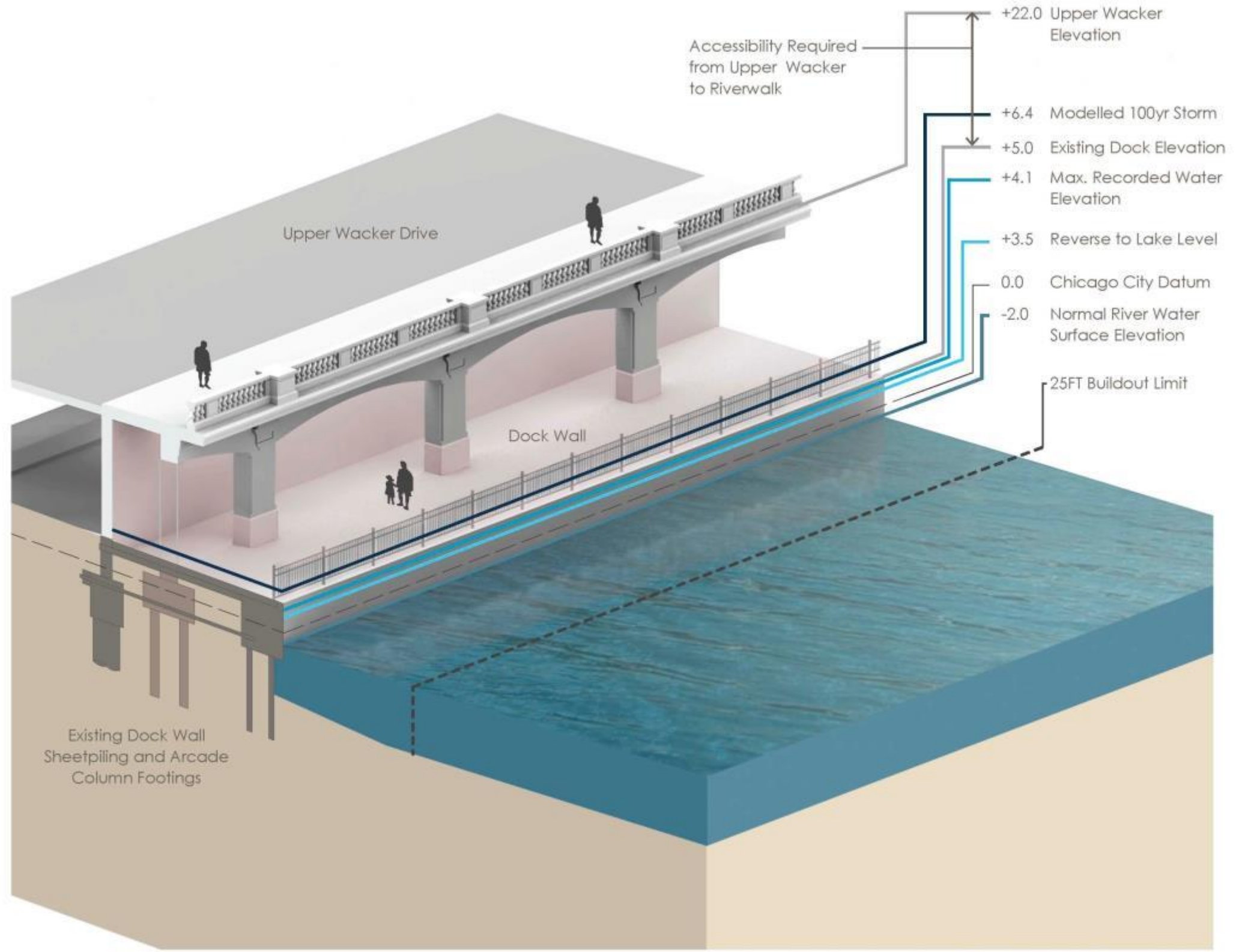
EXISTING CONDITIONS + CHALLENGES



Accessibility: Required Ramp Lengths



EXISTING CONDITIONS + CHALLENGES







CHICAGO REMEMBERS



1963 1964 1965 1966 1967 1968 1969 1970

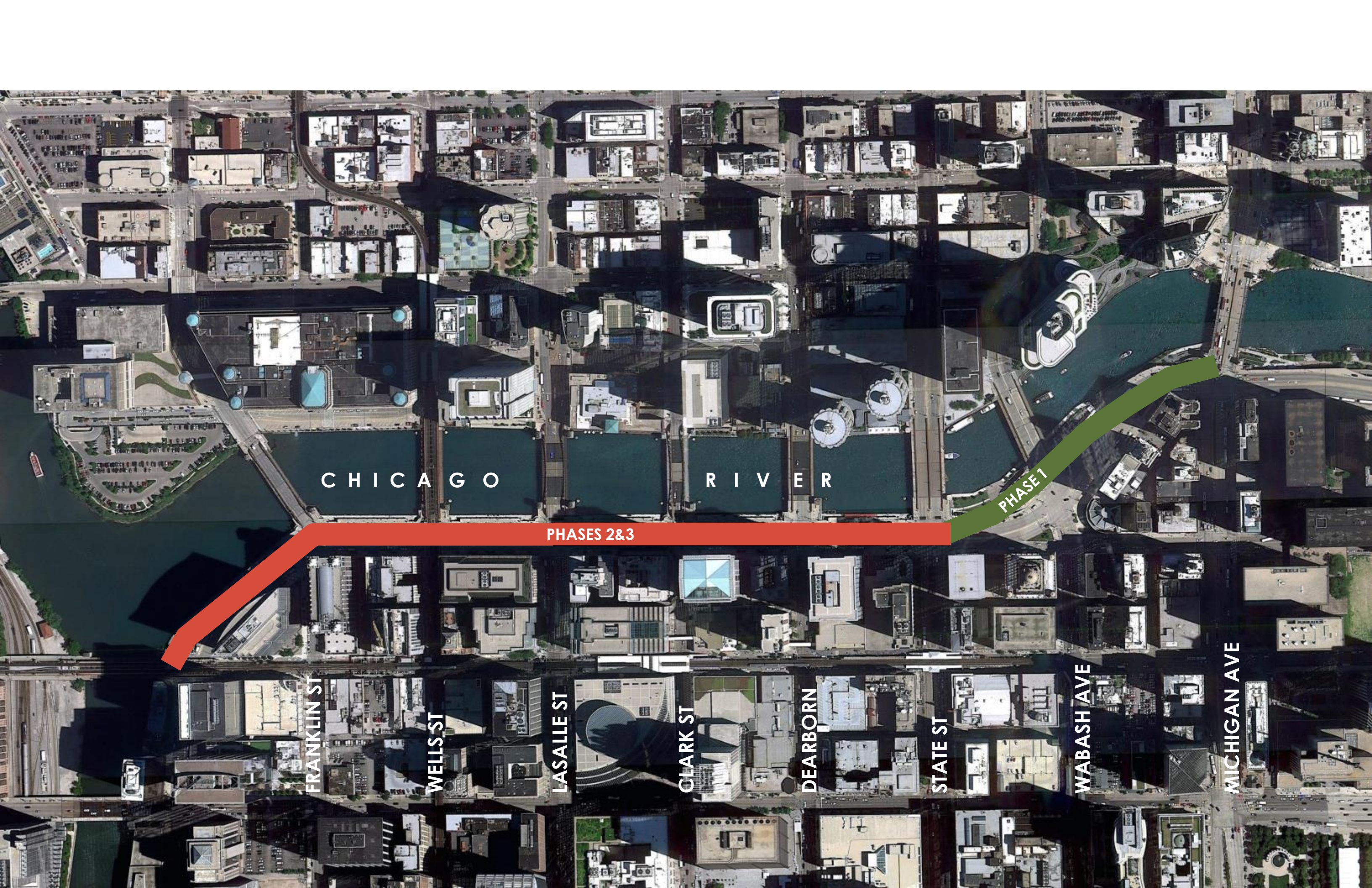
A long, dark horizontal band containing numerous columns of small, white text, likely names of service members, organized by year from 1963 to 1970.











CHICAGO

RIVER

PHASES 2&3

PHASE 1

FRANKLIN ST

WELLS ST

LASALLE ST

CLARK ST

DEARBORN

STATE ST

WABASH AVE

MICHIGAN AVE



THE MARINA









THE COVE

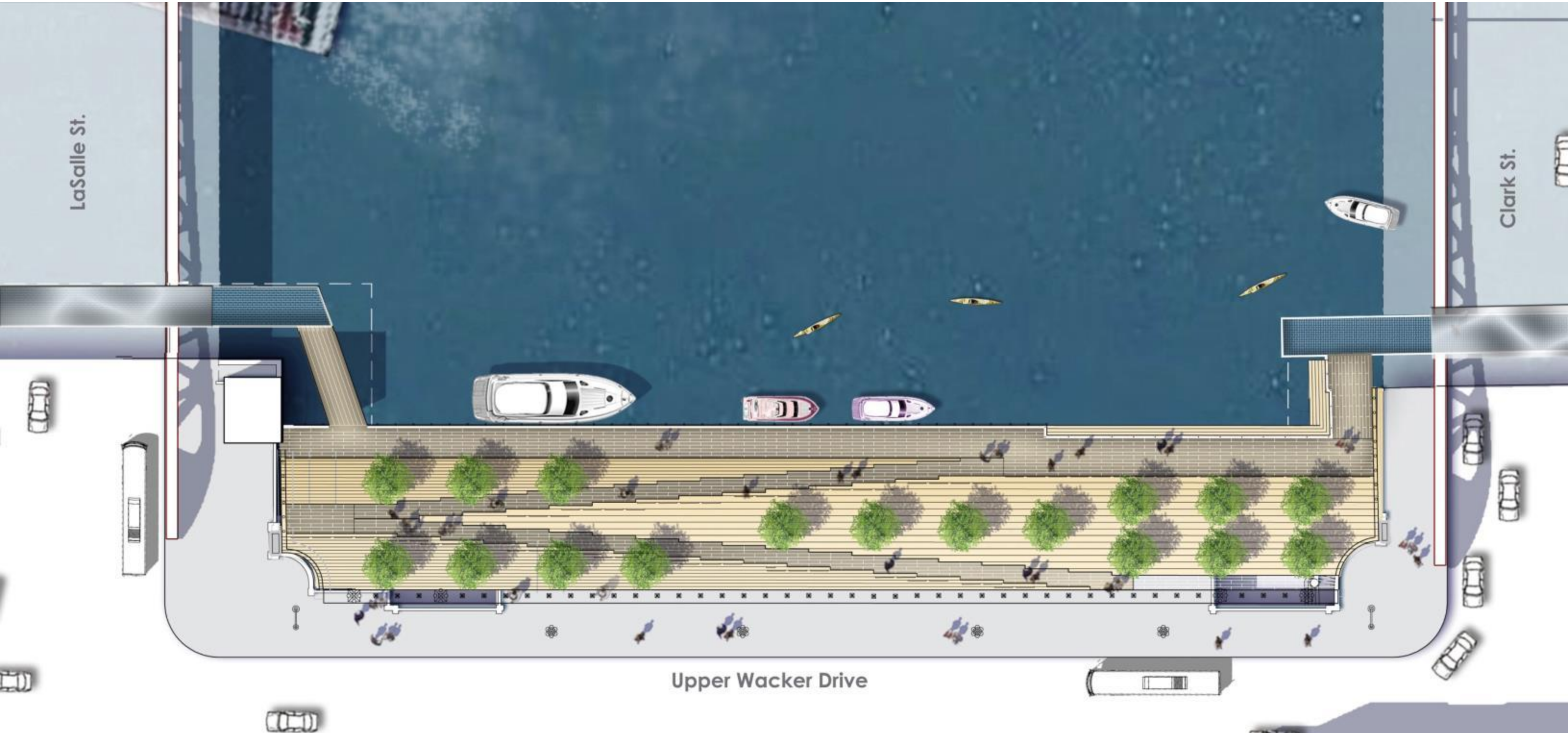








THE RIVER THEATER









Native Tree Species

Custom Tree Grates
with Uplighting
600 Cubic Feet Per Tree
Soil Volume

2000 Gallon
Non-Potable Irrigation Storage

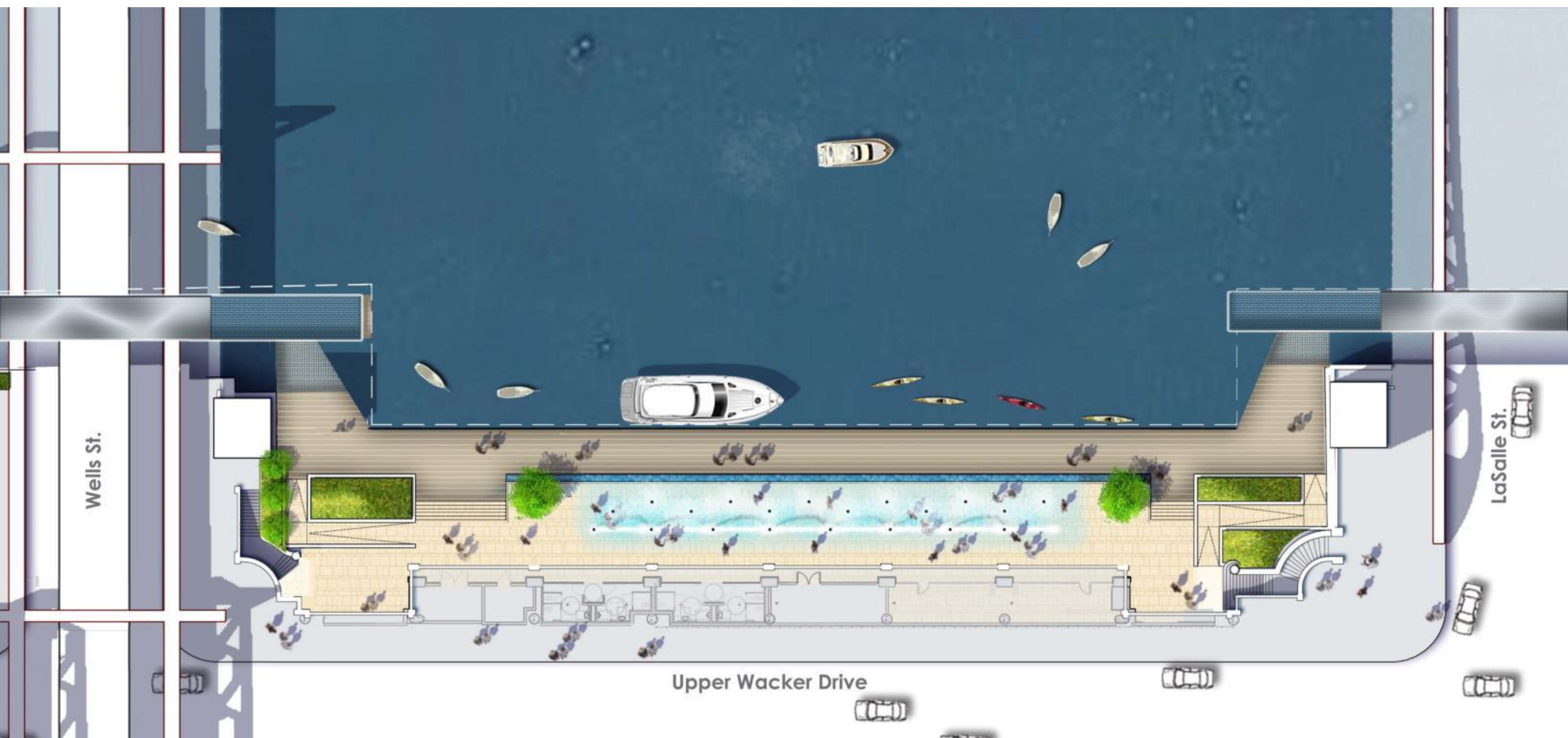
4.85%
Accessible Route

4.85%
Accessible Route





THE WATER PLAZA

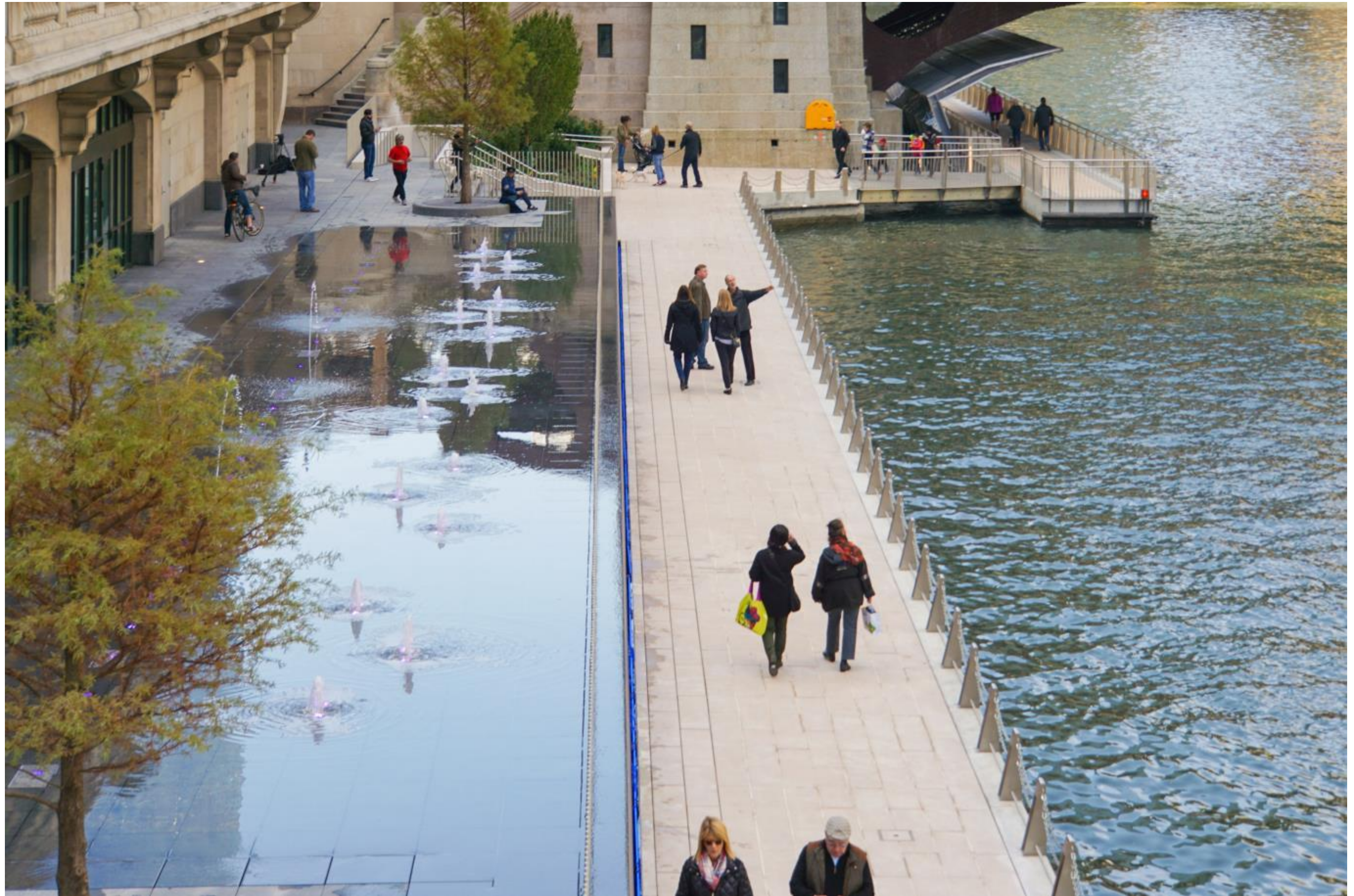




THE WATER PLAZA

THE WATER STORY







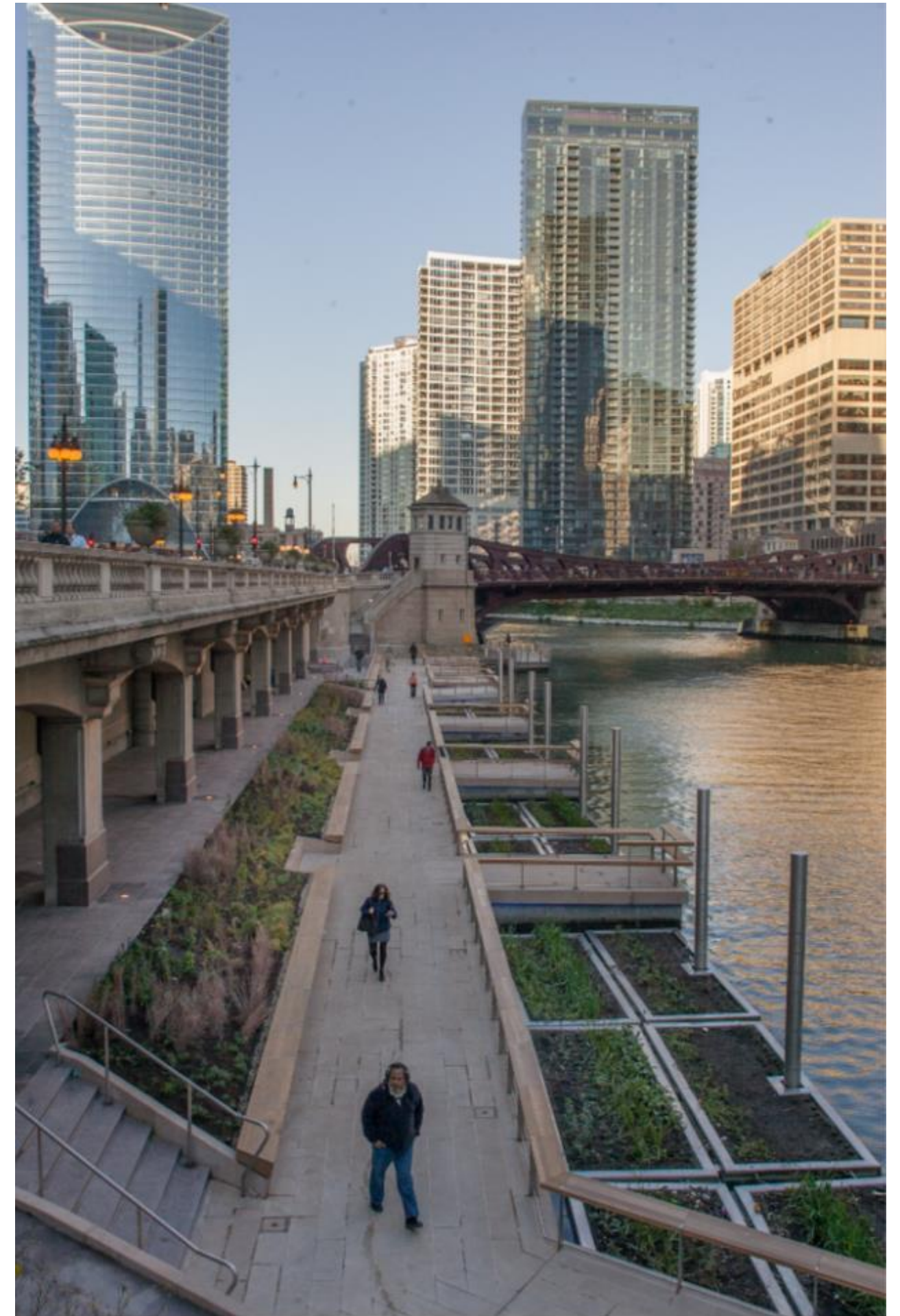
THE JETTY





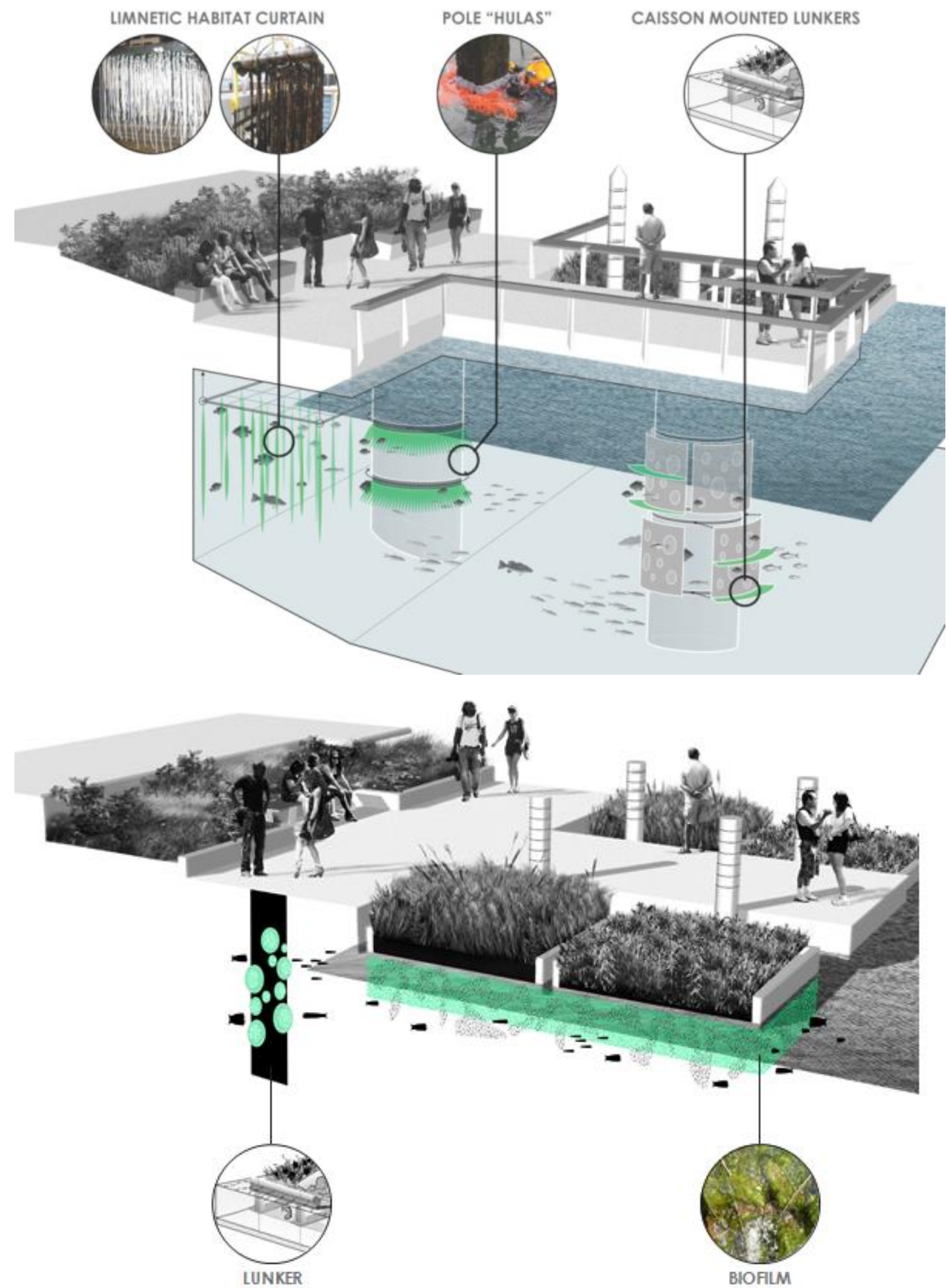
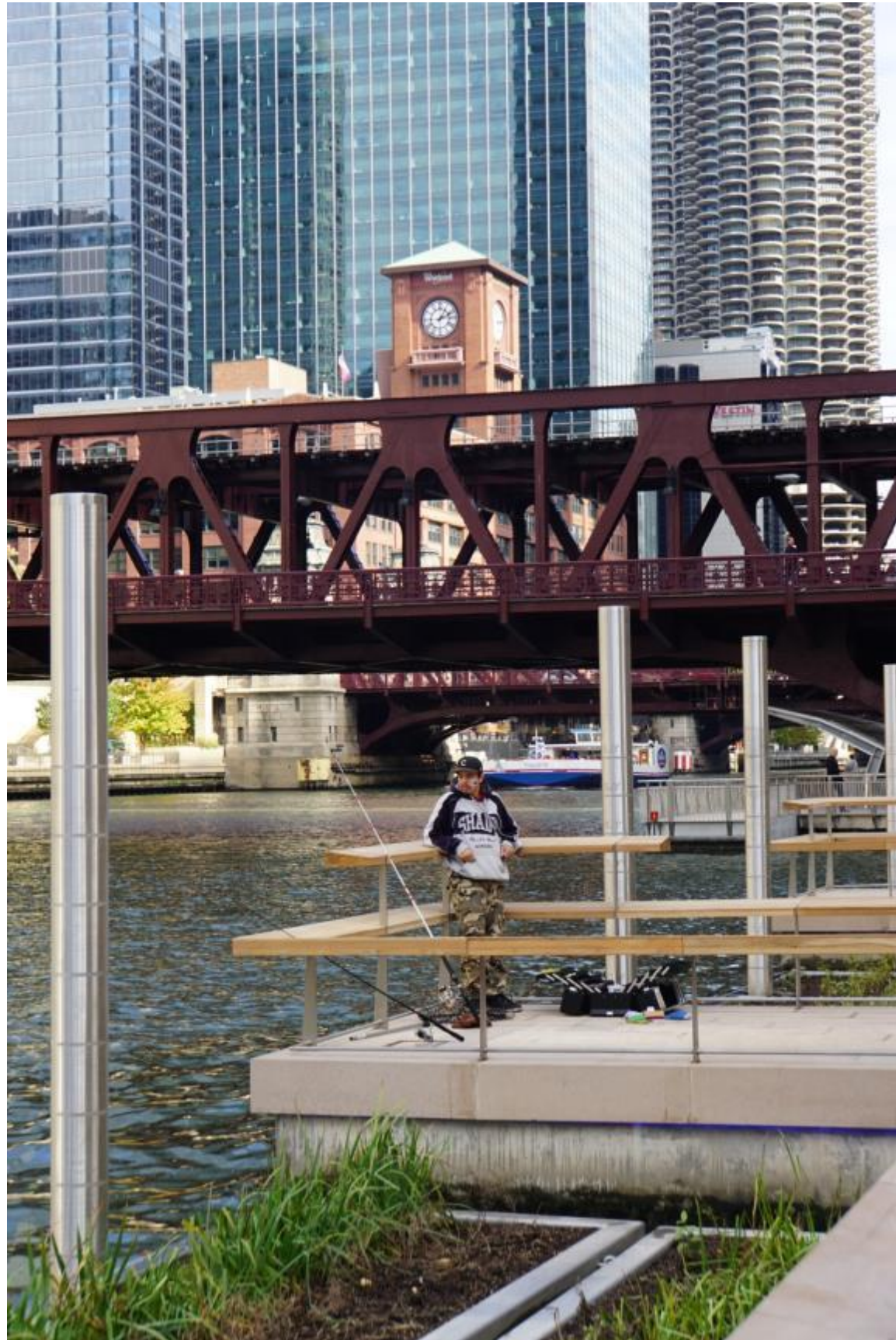
THE JETTY

THE RIVERBANK STORY



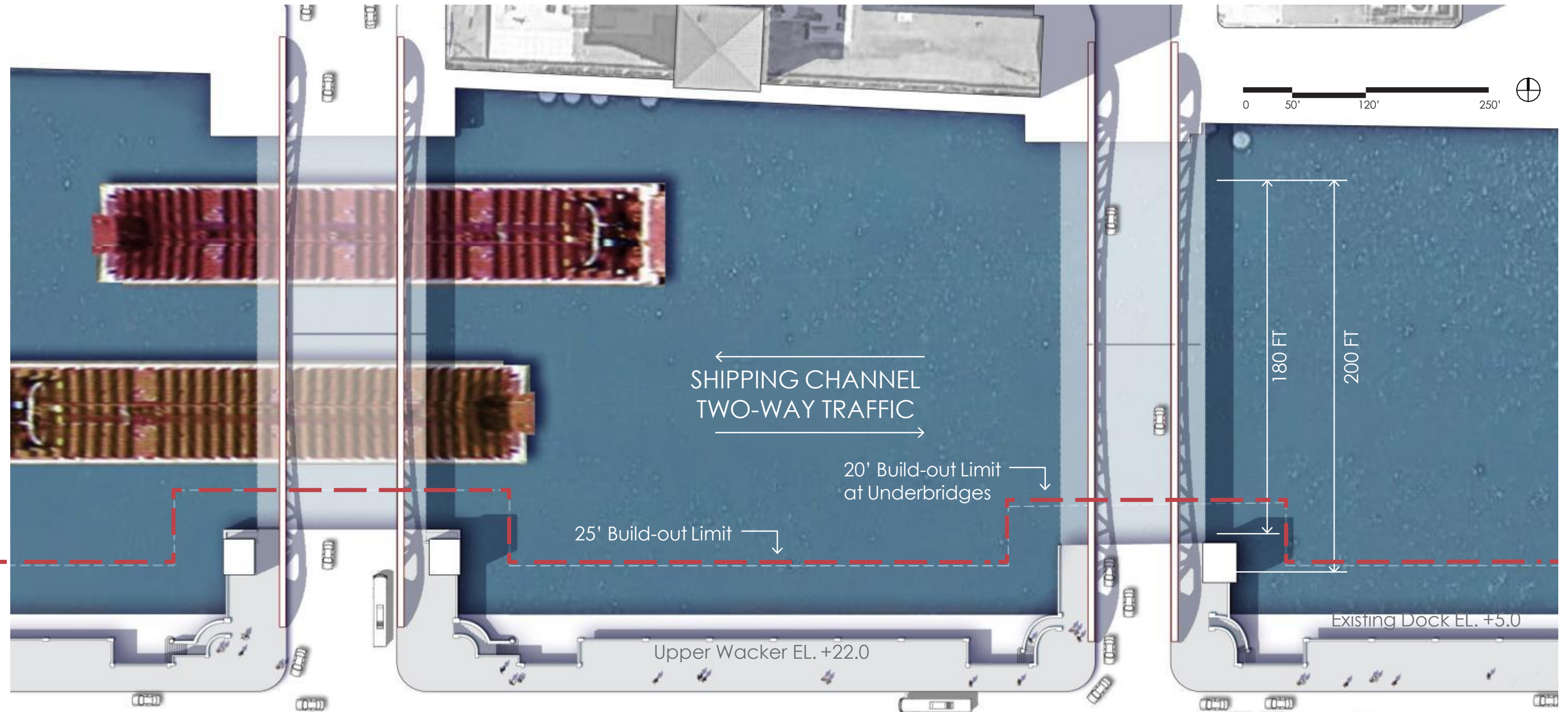
THE JETTY

THE RIVERBANK STORY





REGULATORY AND PERMITTING PROCESS



- The Chicago River is designated as “Waters of the United States” and protected by Federal Law.
- The City was required to obtain permission from Congress to construct the Riverwalk into the river.
- On September 24, 2003, the U.S. House of Representatives passed Water Resources Development Act H.R. 2557 allowing the City to build:
 1. 20 feet into the river beneath each Bascule Bridge (six total).
 2. 25 feet between the Bascule Bridges.
 3. 50 feet between Franklin and Lake Streets where the river widens at the confluence of the three branches of the Chicago River.

REGULATORY AND PERMITTING PROCESS

Federal

USACE

- **Section 404 (Clean Water Act) – Individual Permit**

USCG

- **Underbridge and Overall Project Sign-Off**
- Initial Risk Assessment for USACE Permit
- Bridge Permit Application
- Bridge Lighting Permit Application
- Navigation Lighting Review

USFWS

- Threatened and Endangered Species Sign-Off

FHWA

- Notification of Adverse Effect and Memorandum of Agreement (MOA)
- Final Plan Review Sign-Off

State

IEPA

- Section 401 (Clean Water Act) – Water Quality Certification with Anti-Degradation Report
- Stormwater Pollution Prevention Plan (SWPPP)

IDNR/ICMP

- ICMP Federal Consistency Determination & Certification + Part 3704 IDNR Permit

MWRDGC

- **Hydraulic Analysis & Operations Report Sign-Off**
- Sewer Permit for Sewer Connections/Structure Modifications

Illinois Historical Preservation Agency – State Historic Preservation Office (SHPO)

- National Historic Preservation Act – Section 106 Sign-Off from Advisory Council on Historic Preservation

City of Chicago

- City of Harbor Permit
- CDOT Irrigation & Landscaping

DWM

- Proposed Sewer Design Sign-Off
- Water Supply Design Sign-Off

OUC

- Structures/Deep Foundations/Sheet Piling (Depth > 12 feet) Sign-Off
- New Sewers or Drainage Structures (Depth > 12 feet) Sign-Off

DEO

- Electrical & Lighting – Internal DEO plan review and approval

MOPD

- Internal plan review and approval

HED

- Landmarks Commission – Internal plan review and approval

Other

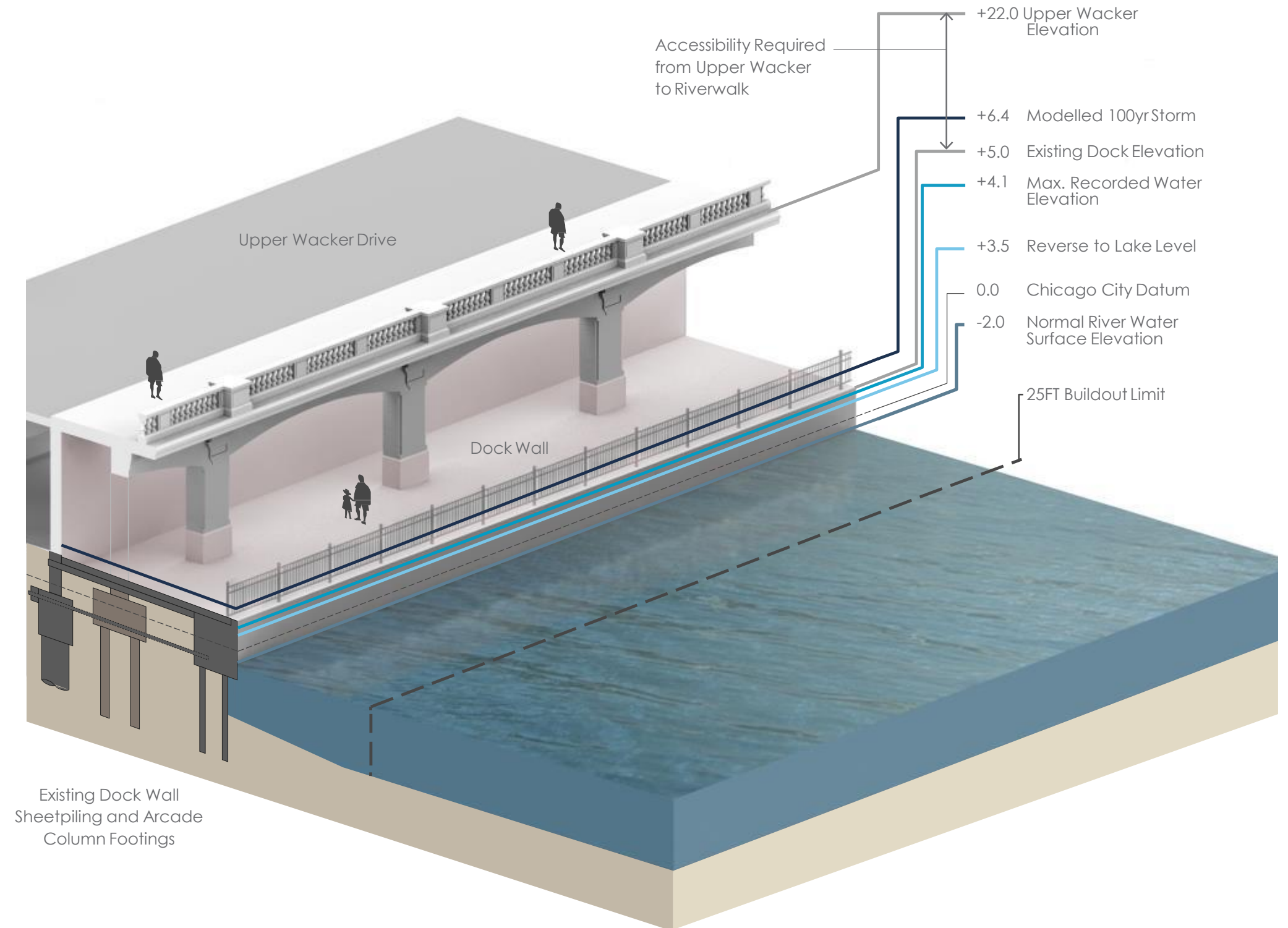
Wacker Drive Building Owners/Managers

- Verification of existing pipes and coordination/approval of proposed pipe extensions and related work

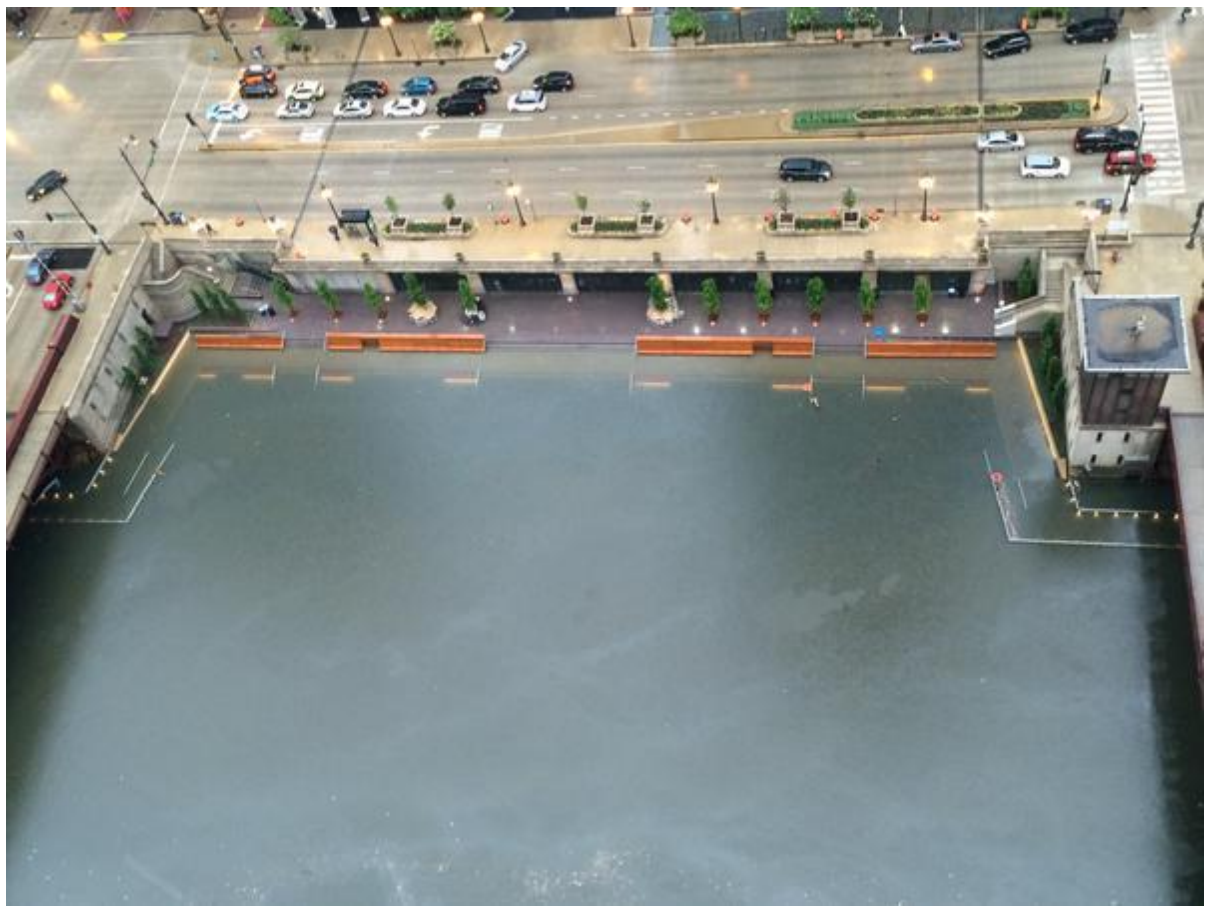
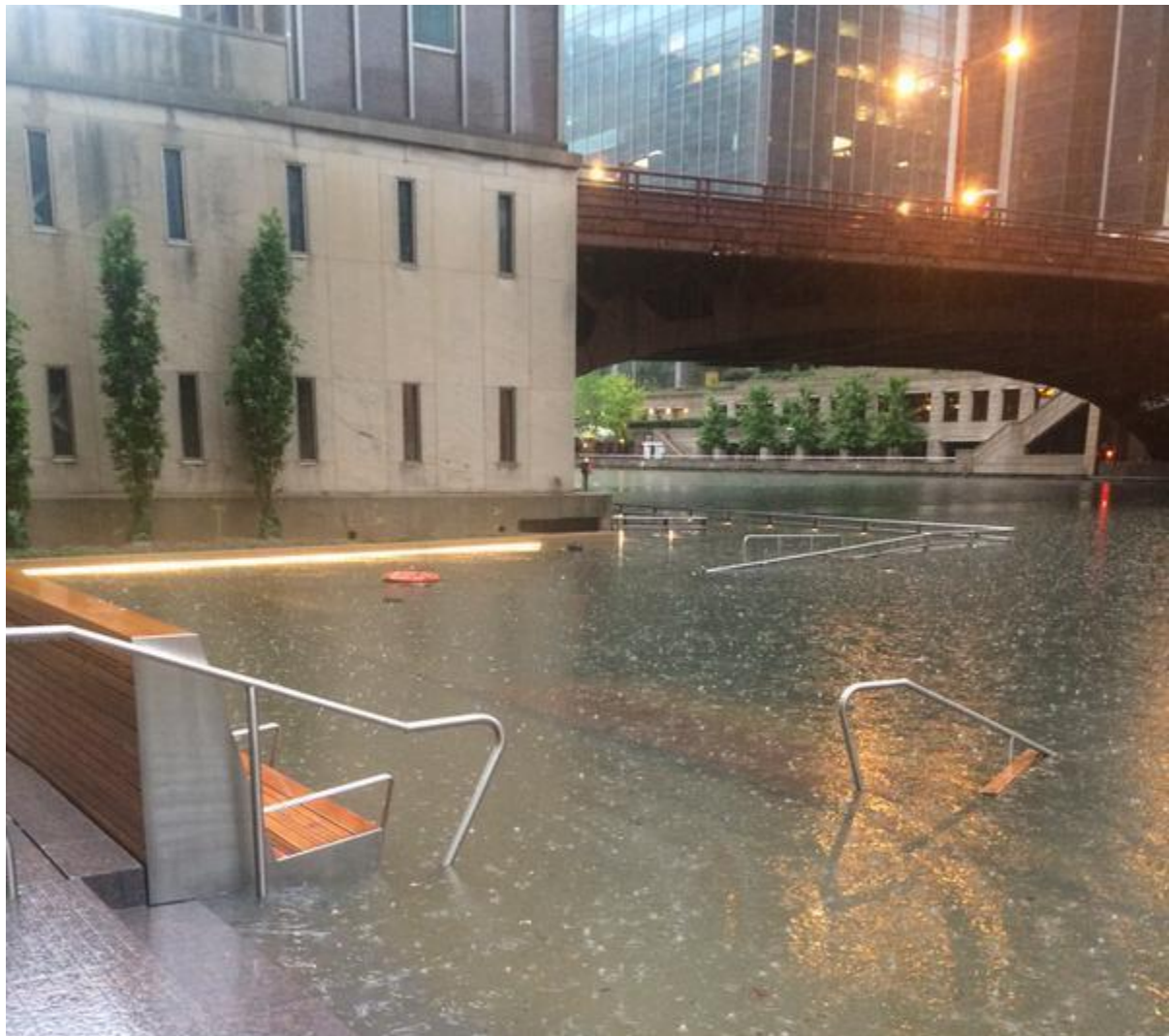
CTA

- Underbridge Structure over CTA Red Line Tunnel at State Street
- Underbridge Structure under Wells Street – Brown & Purple Line Tracks
- Marine Structure near CTA Blue Line Tunnel at Lake Street

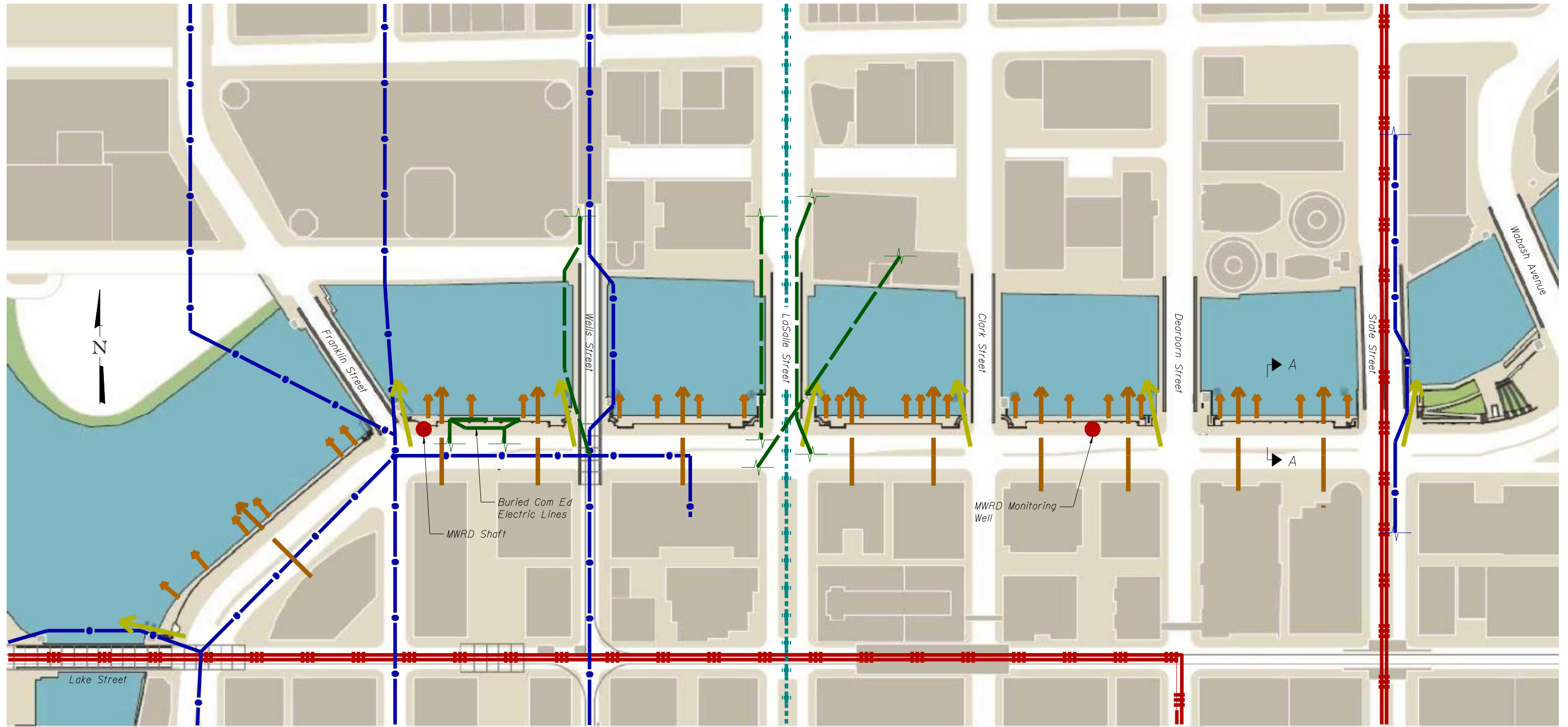
EXISTING CONDITIONS AND CHALLENGES



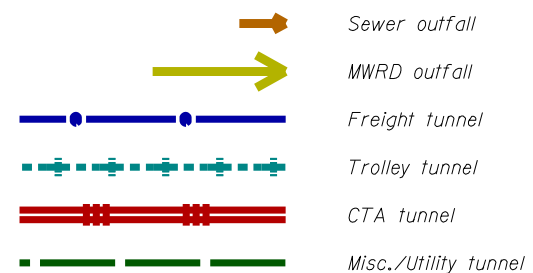
- River depth = 20ft
- Existing walkway width = 10ft
- Upper Wacker elevation = +22.0
- Existing dock elevation = +5.0 CCD
- Normal water elevation = -2.0 CCD
- Max. recorded water elevation = +4.1
- CCD Modeled 100yr storm elevation = +6.4 CCD



EXISTING SUBSURFACE UTILITIES

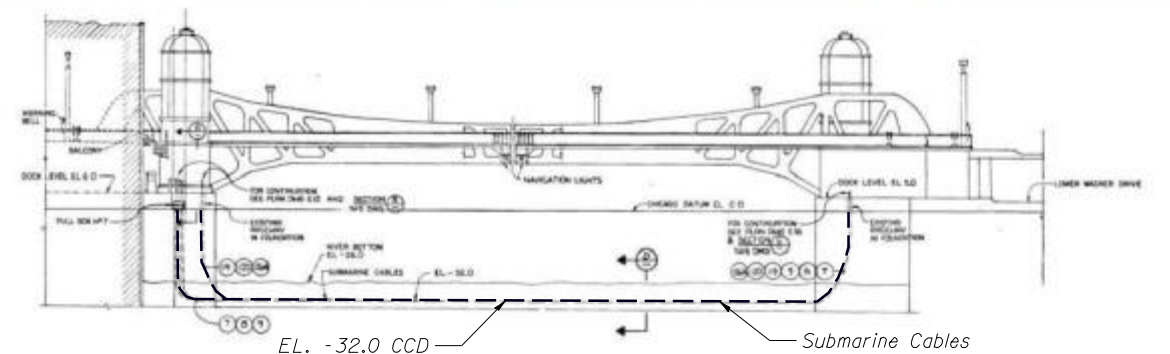


LEGEND



NOTES:

1. All buildings along length of project assumed to have chiller pipes.
2. All bridges along length of project assumed to have submarine cables (not shown for clarity). See Typical Bridge Elevation on this sheet.
3. See sheet 2 for Section A-A.

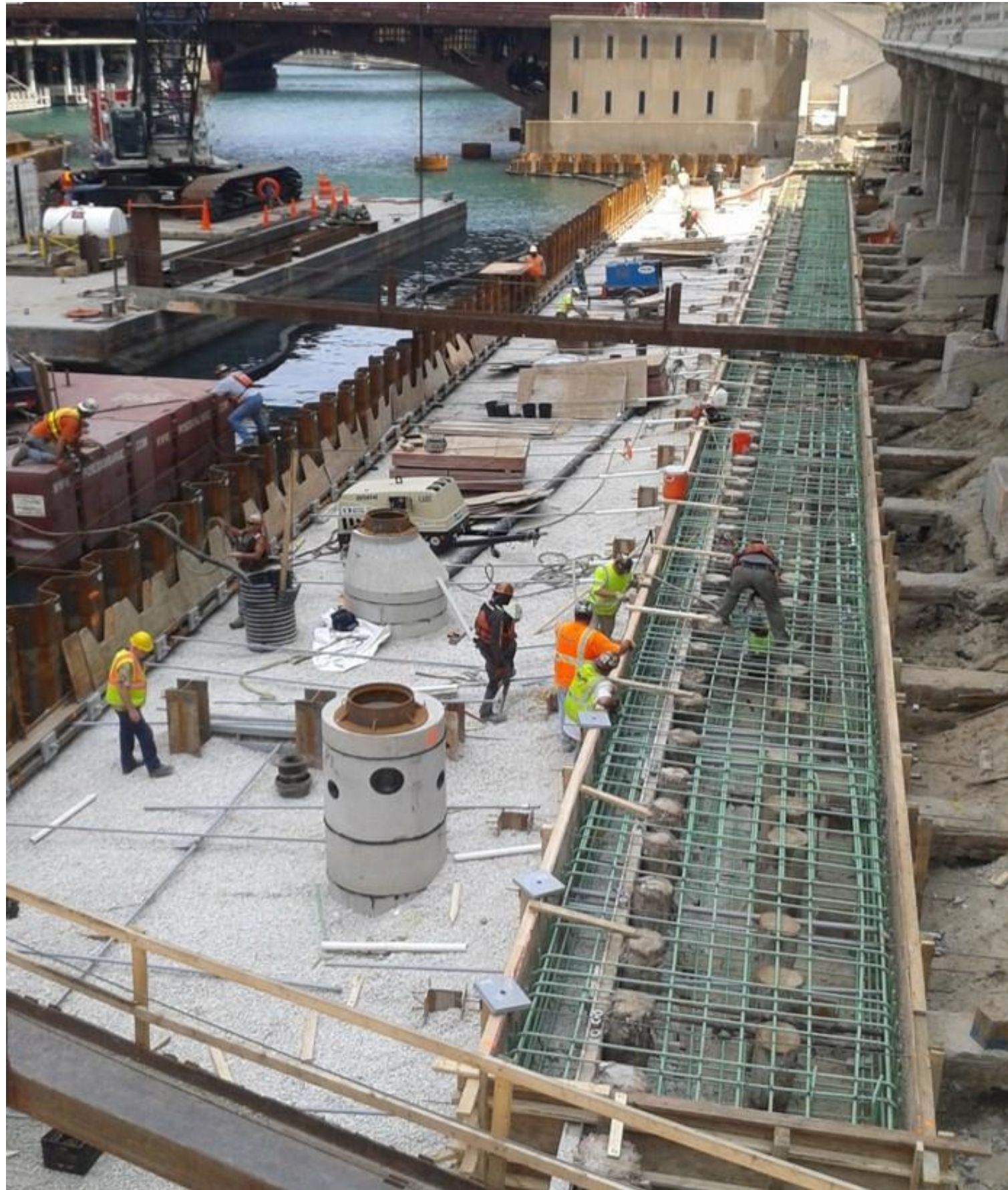








EXPAND THE RIVERFRONT



STRUCTURAL DESIGN & CONSTRUCTION CHALLENGES

CROSSING THE BASCULE BRIDGES [“UNDERBRIDGES”]

The canopied walkways beneath the bascule bridges are 10 ft. wide and vary in length up to 170 ft. Each structure consists of a 4 ft. deep concrete cap on four drilled shafts ranging from 6 ft. to 8 ft. in diameter. To allow water to flow behind the underbridges, steel grating bridges span to the adjacent rooms at each end.

- Meet U.S. Coast Guard design criteria for Vessel Collision
- Consider methods of construction beneath/adjacent to the bascule bridges
- Avoid submarine cables connecting the bridge houses
- Straddle existing tunnels beneath the River
- Maintain constructibility



UNDERBRIDGES

VESSEL COLLISION

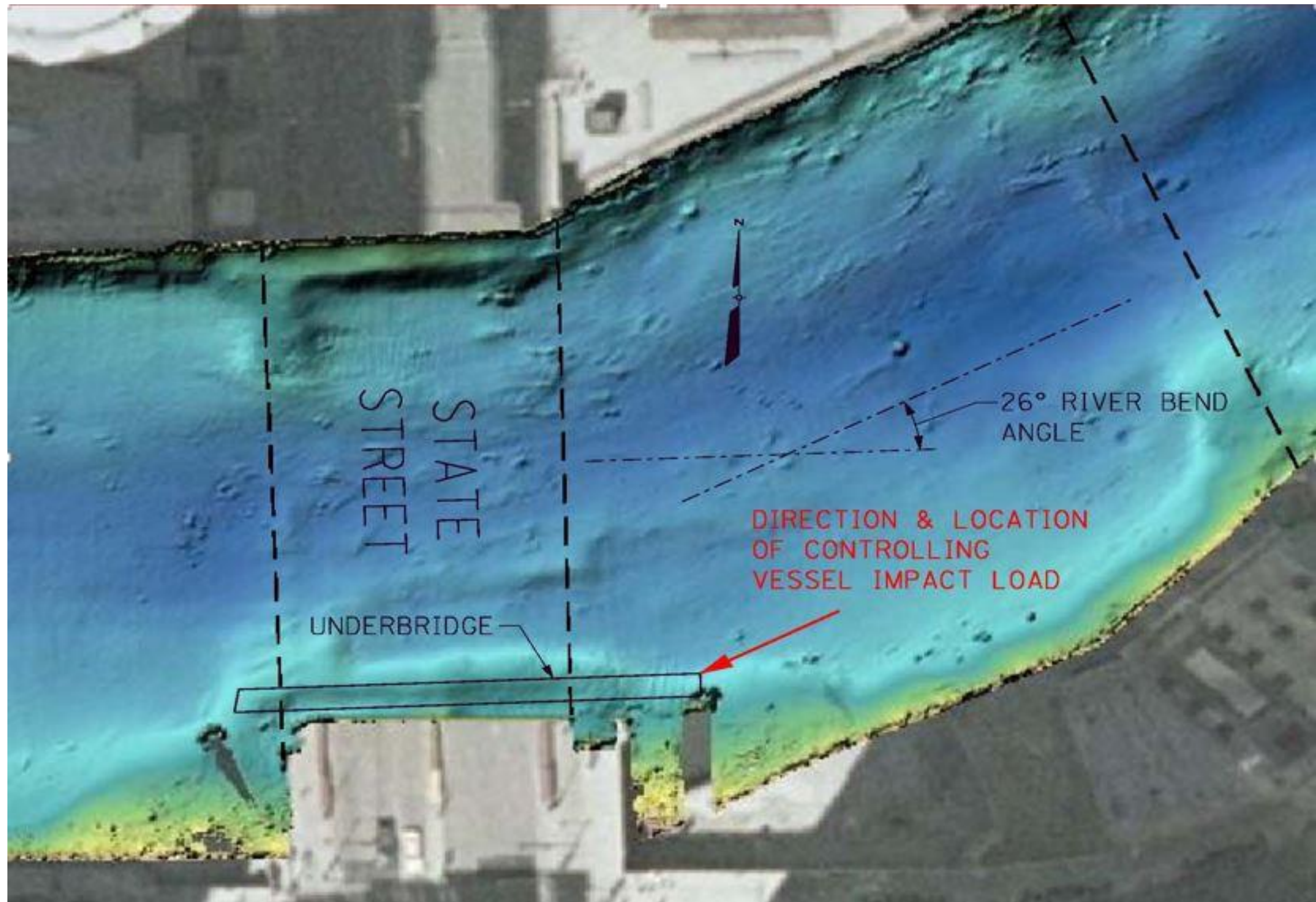
Design Vessel	Total Displacement (tonnes)	Vessel Impact Speed (mph)	Collision Force Parallel to Channel (lbs.)	Collision Force Perpendicular to Channel (lbs.)



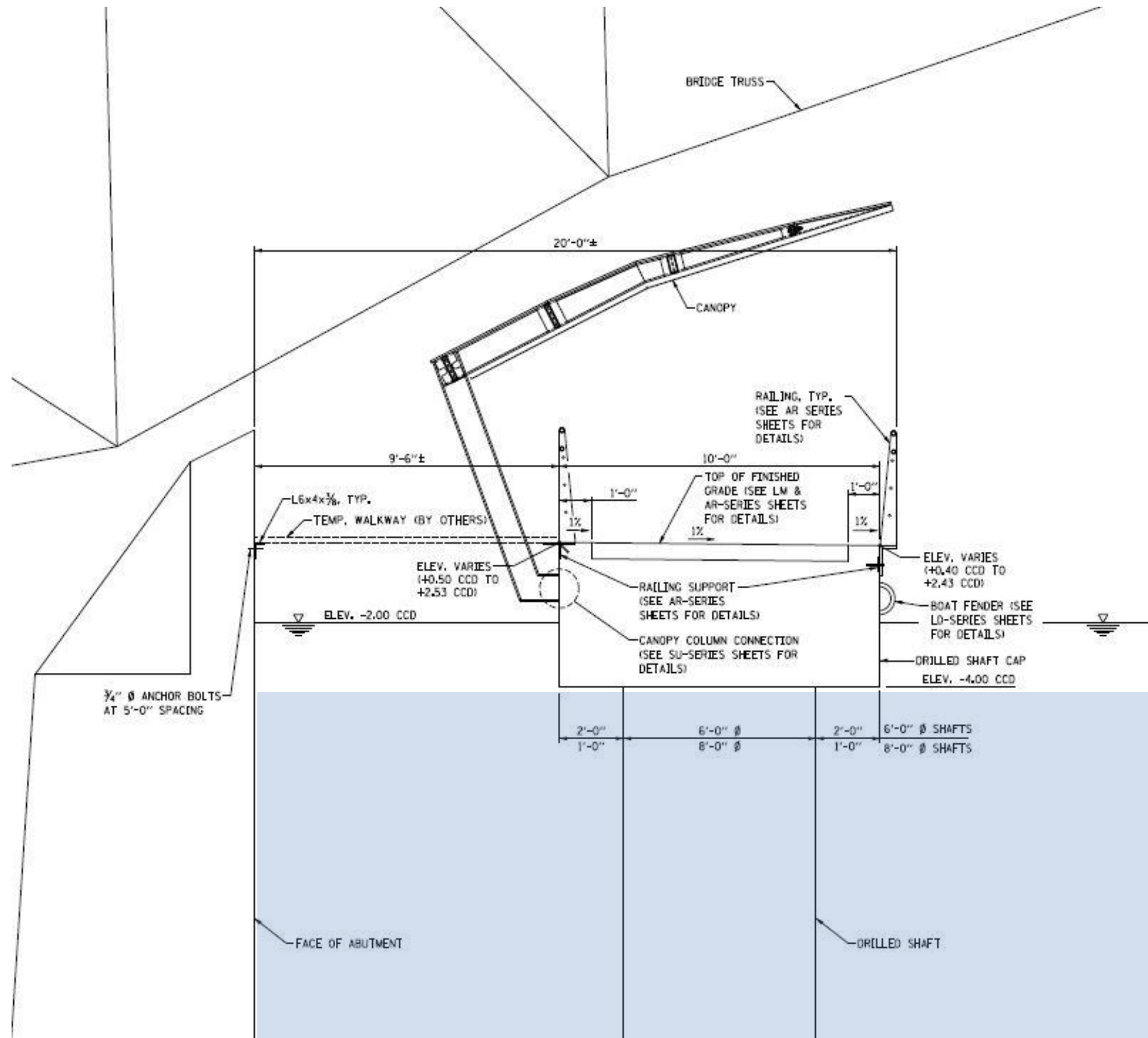


UNDERBRIDGES

VESSEL COLLISION

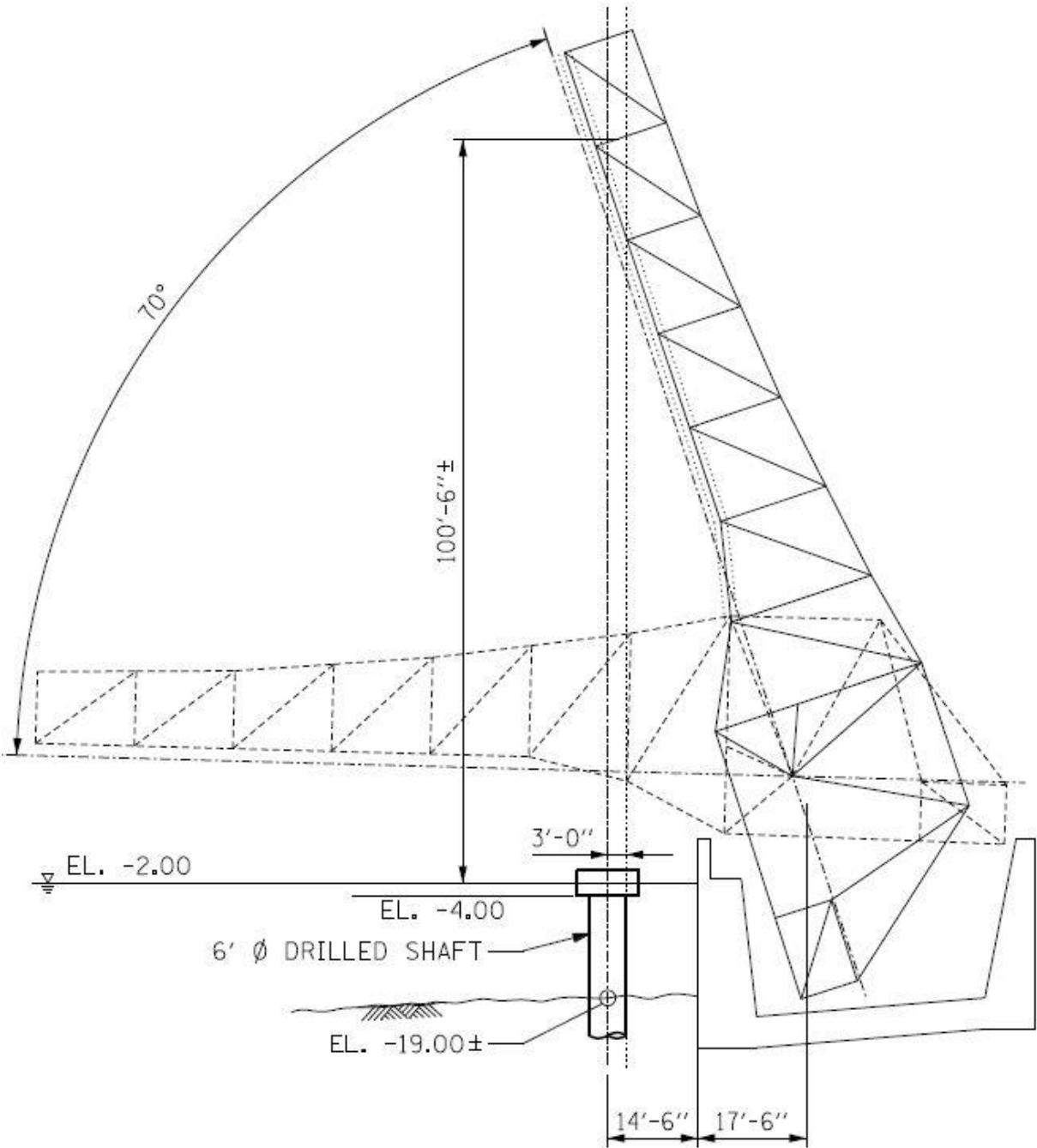


TYPICAL SECTION



UNDERBRIDGES

DRILLED SHAFT CONSTRUCTIBILITY



**DRILLED SHAFT CLEARANCE
AT CLARK ST.**
(BRIDGE LEAF OPEN TO 70°)



UNDERBRIDGES

DRIILLED SHAFT CONSTRUCTIBILITY



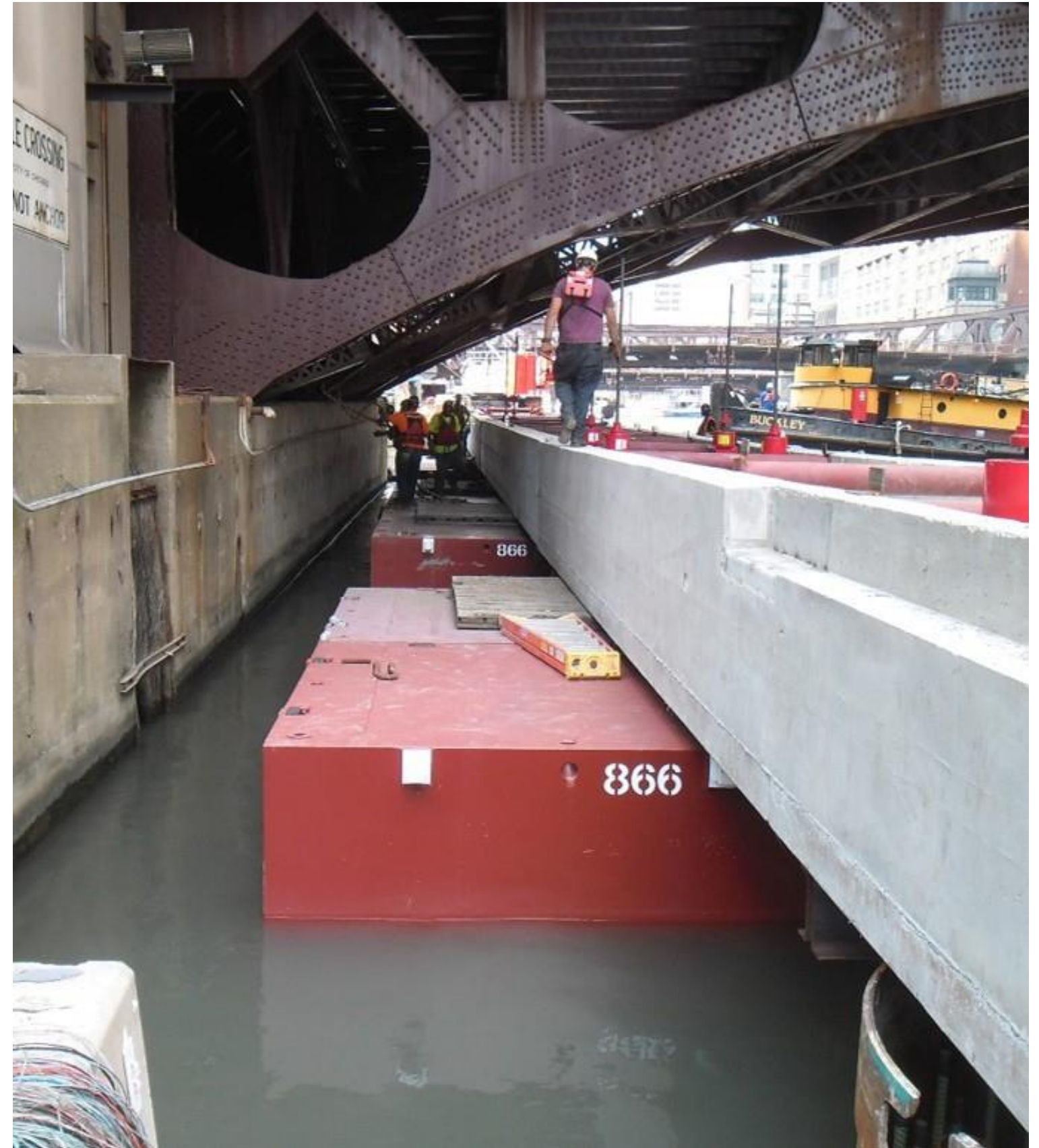
UNDERBRIDGES

DRILLED SHAFT CAP

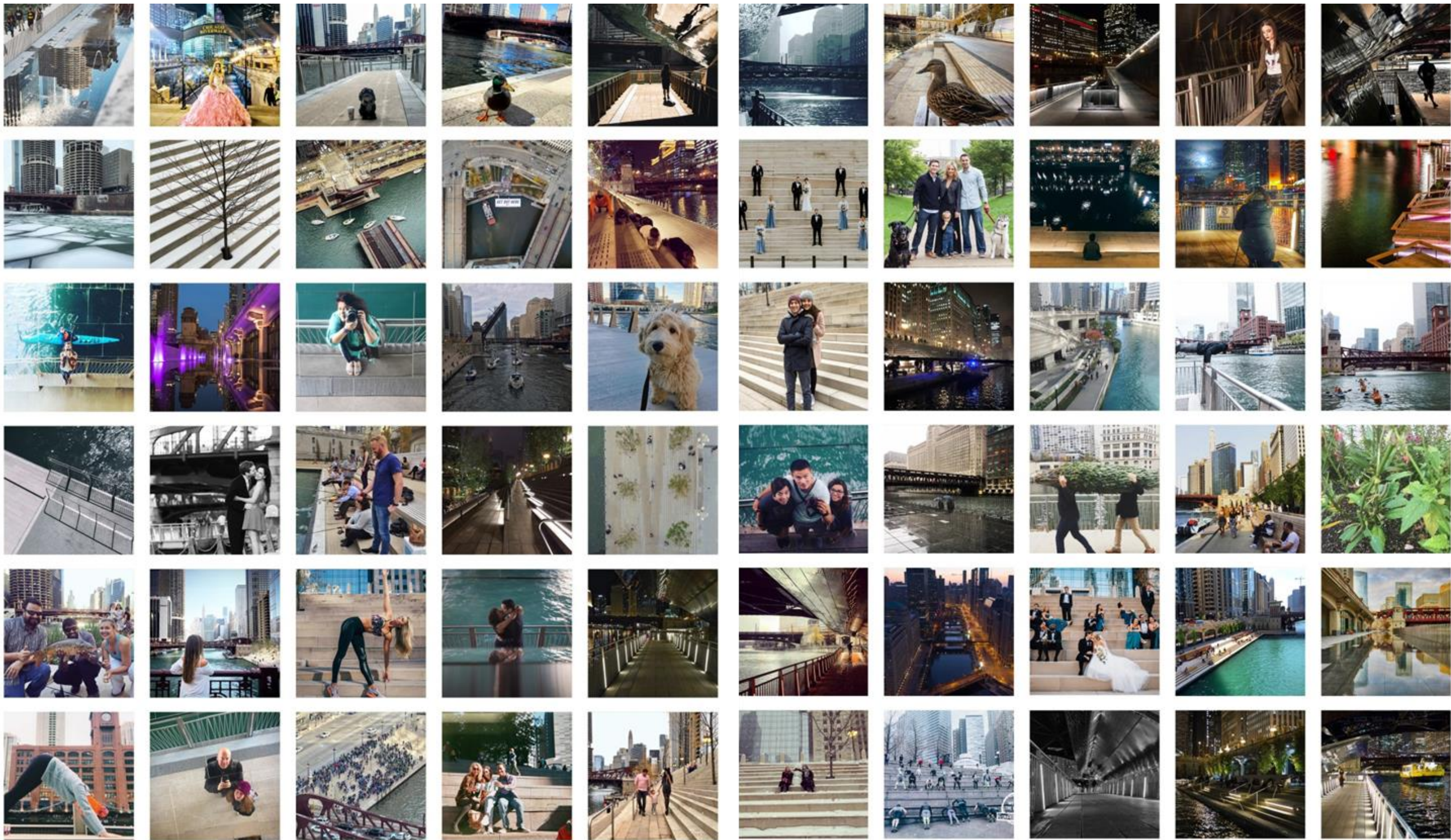


UNDERBRIDGES

DRILLED SHAFT CAP

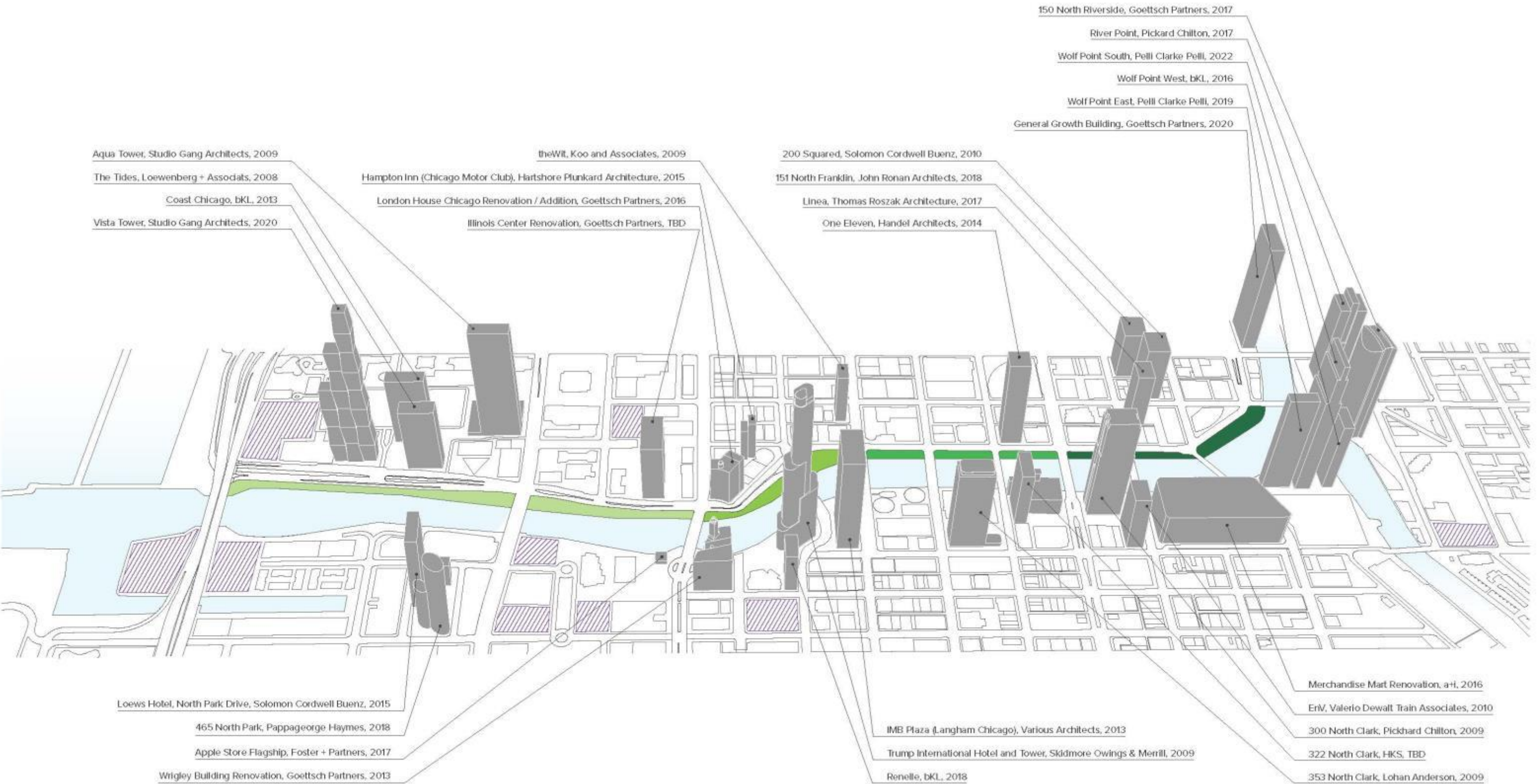






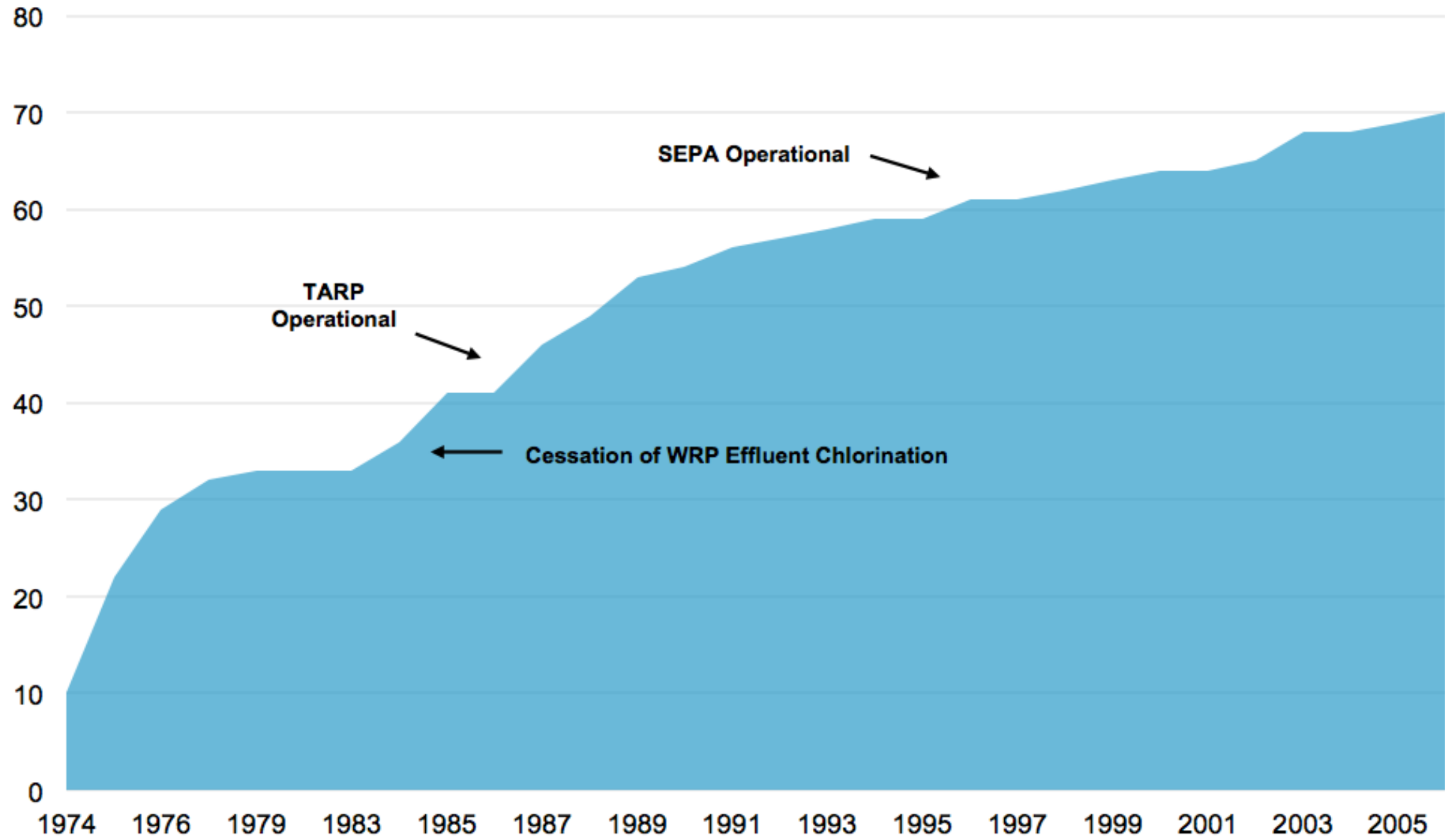
Development along the Chicago river since 2008

-  North
-  Existing
-  Future Development Sites
-  Phase 01, 2005 & 2009
-  Phase 02, 2015
-  Phase 03, 2016



Cumulative number of fish species

Collected from the Chicago and Calumet river systems, 1974–2006



GREAT RIVERS CHICAGO

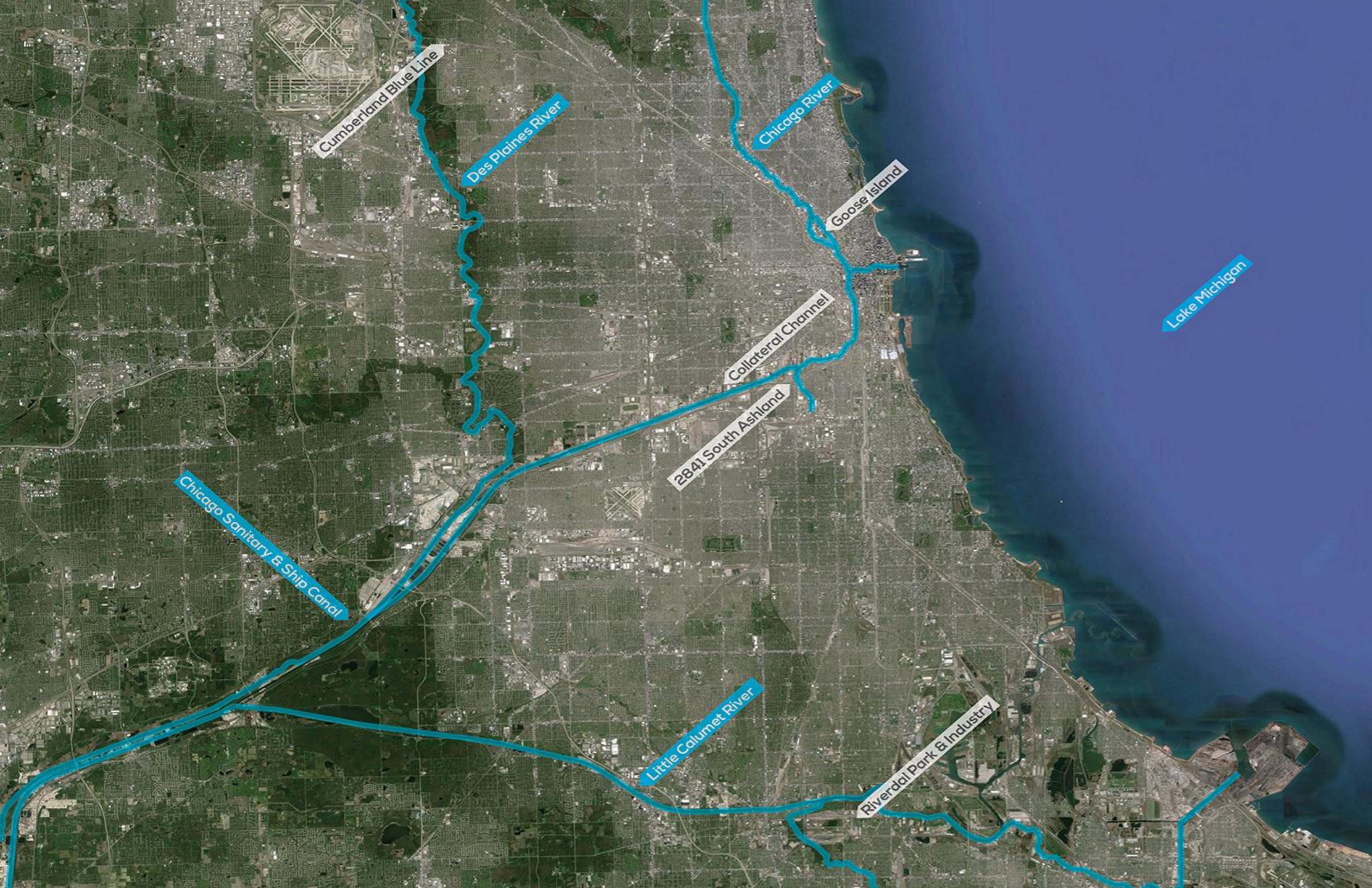
Reconnecting Chicago and our rivers

greatriverschicago.com

OUR GREAT RIVERS

A vision for the Chicago, Calumet and Des Plaines rivers





Cumberland Blue Line

Des Plaines River

Chicago River

Goose Island

Collateral Channel

2841 South Ashland

Chicago Sanitary & Ship Canal

Little Calumet River

Riverdale Park & Industry

Lake Michigan

High to sea bank



1008101





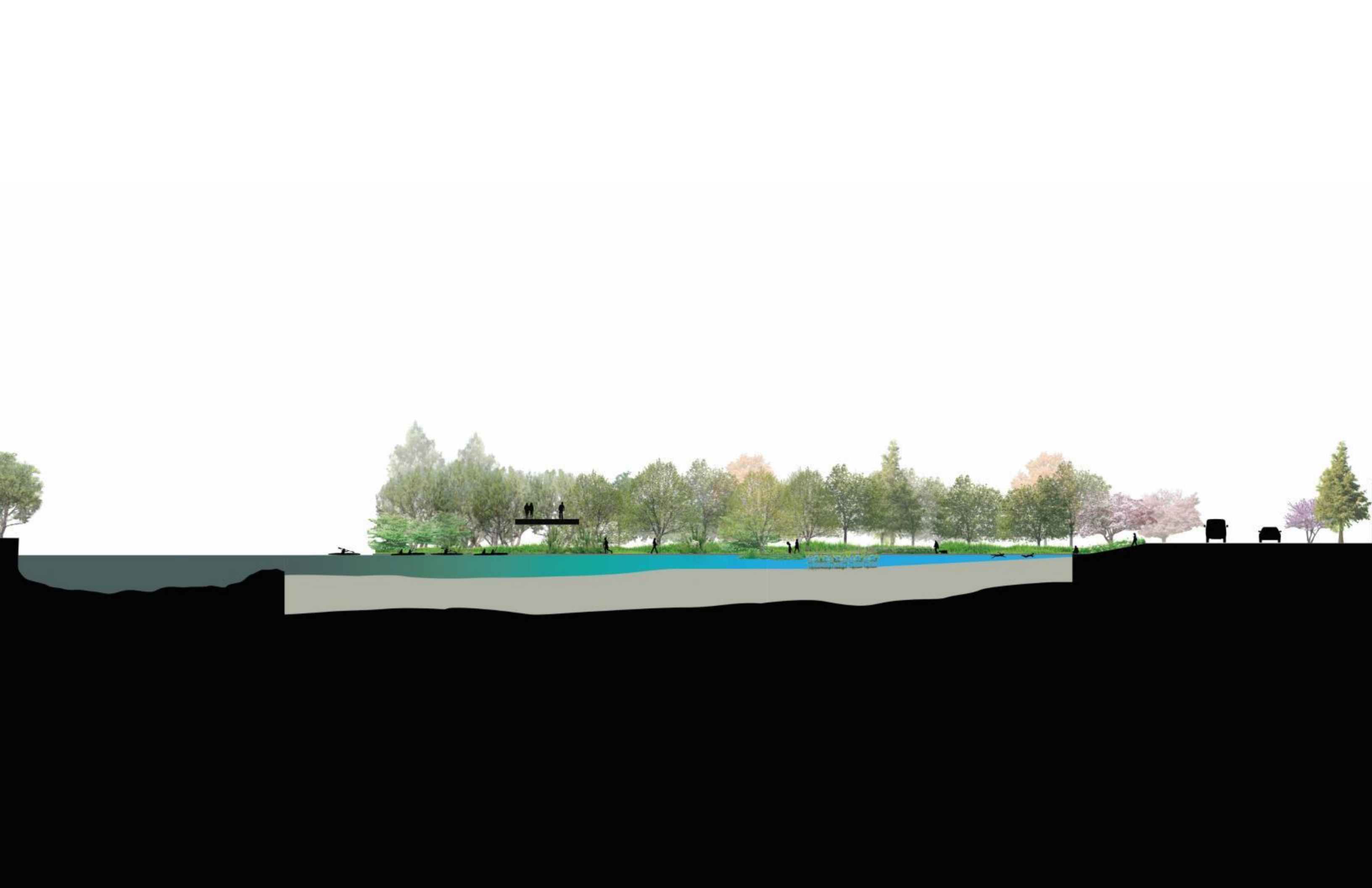
East Goose Island





Collateral Channel at CN Railway



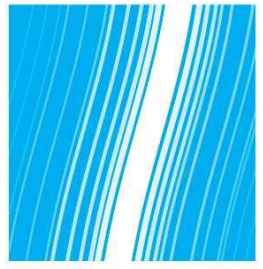




Cumberland Blue Line Trail Signage



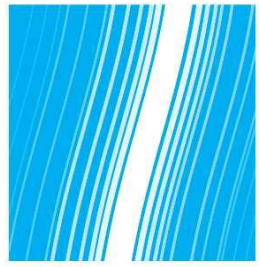




River Edge

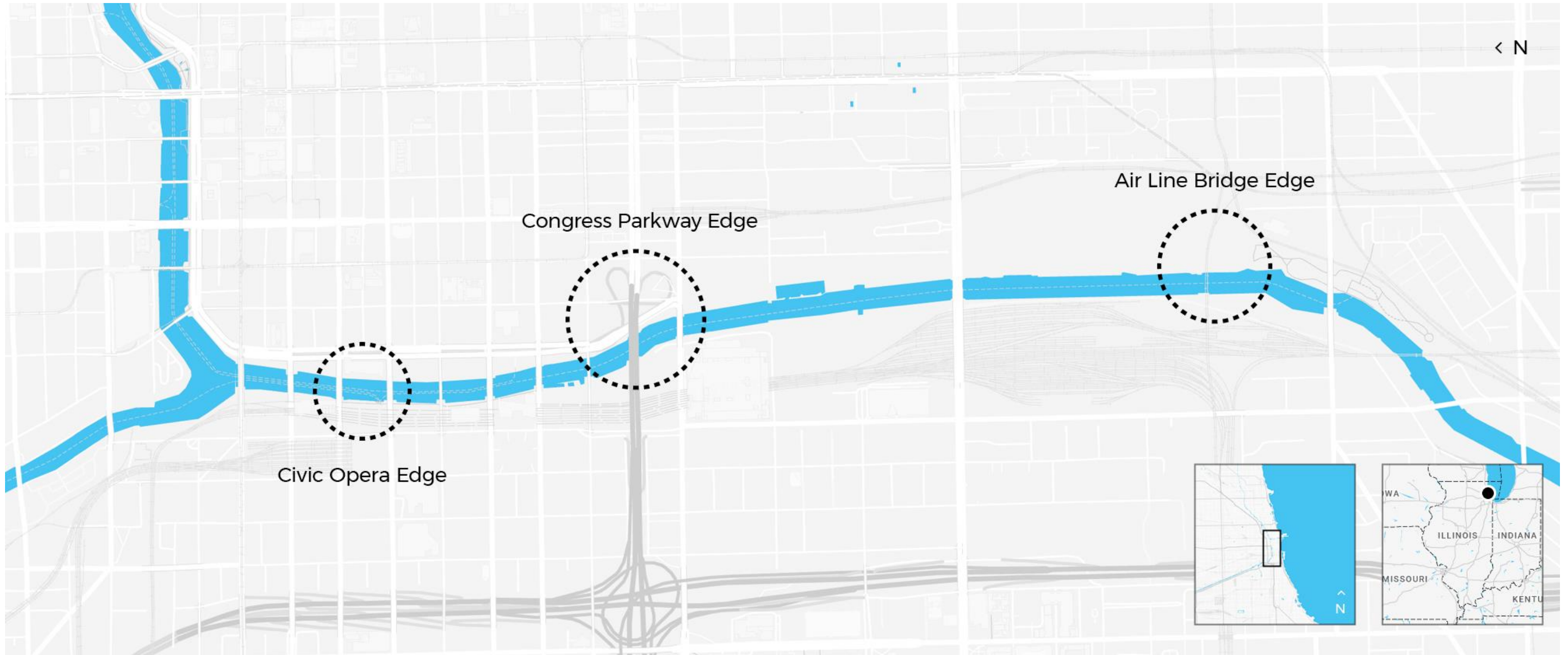
— ★ — ★ — ★ — ★ —
I D E A S L A B





River Edge

IDEAS LAB





berkling + will

Altive Associates

Lyric Colonnade

Promenade metro rail

Architectural model of the Lyric Colonnade, a promenade metro rail project, showing the structure and surrounding urban context.



Barney Architects

Rodis Barney Architects

Sasaki



Urban Sublime

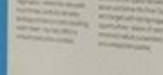
Sasaki

Cloud B

Sasaki

River Ballet

Architectural model of the River Ballet project, showing a river scene with a bridge and surrounding urban context.



Architectural model of the River Ballet project, showing a river scene with a bridge and surrounding urban context.

Studio Gang

SWA



Blue





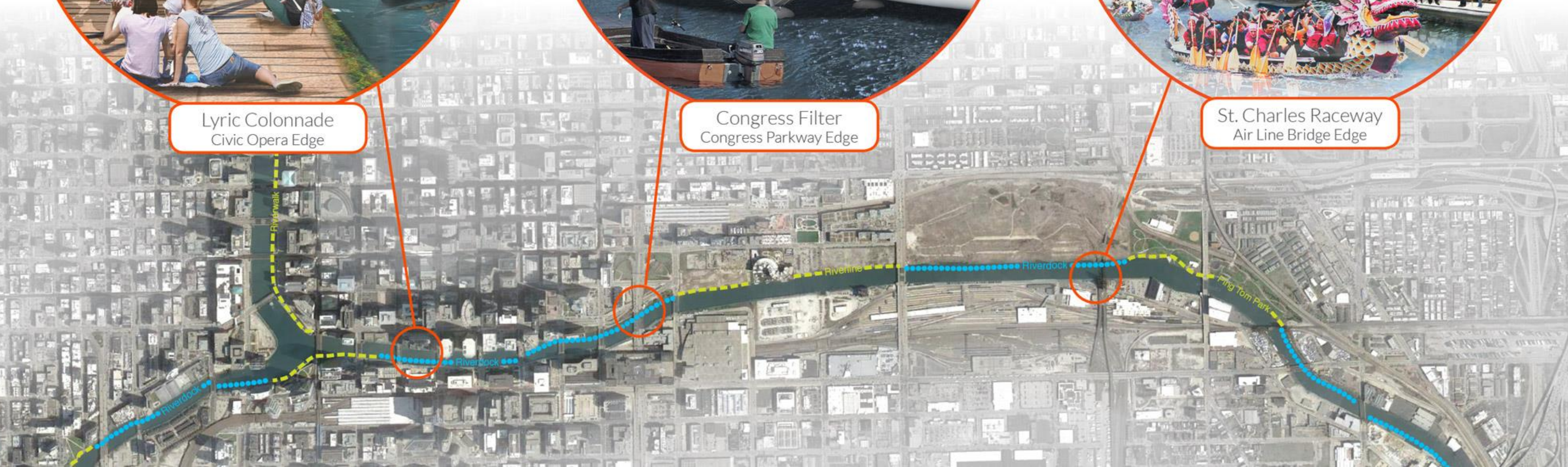
Lyric Colonnade
Civic Opera Edge



Congress Filter
Congress Parkway Edge



St. Charles Raceway
Air Line Bridge Edge

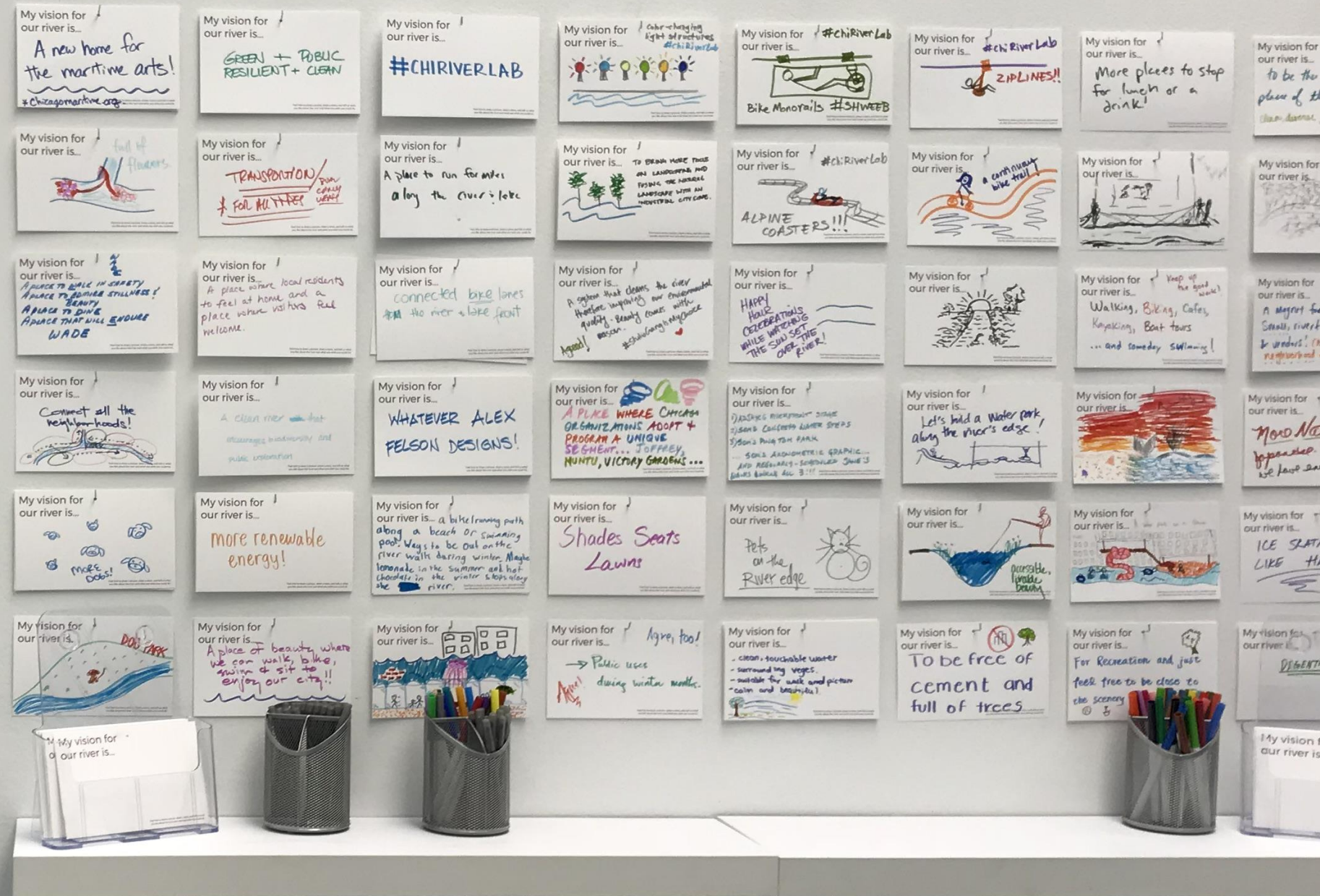




Before You Go . . .

share your vision for the river edge!

Your input will shape important decisions about the future of Chicago's riverfronts! Ultimately, feedback and ideas collected through the River Edge Ideas Lab will inform a new set of river edge design guidelines that will steer future development projects along the Chicago River. Once you've reviewed everything included in this exhibit, please take the time to provide detailed feedback through our survey. **Tell us what resonates with you!**



ross **b**arney **a**rchitects

rb arc