

FOOTPRINT SALEM HARBOR STATION

02.26.2013 FOOTPRINT POWER LLC



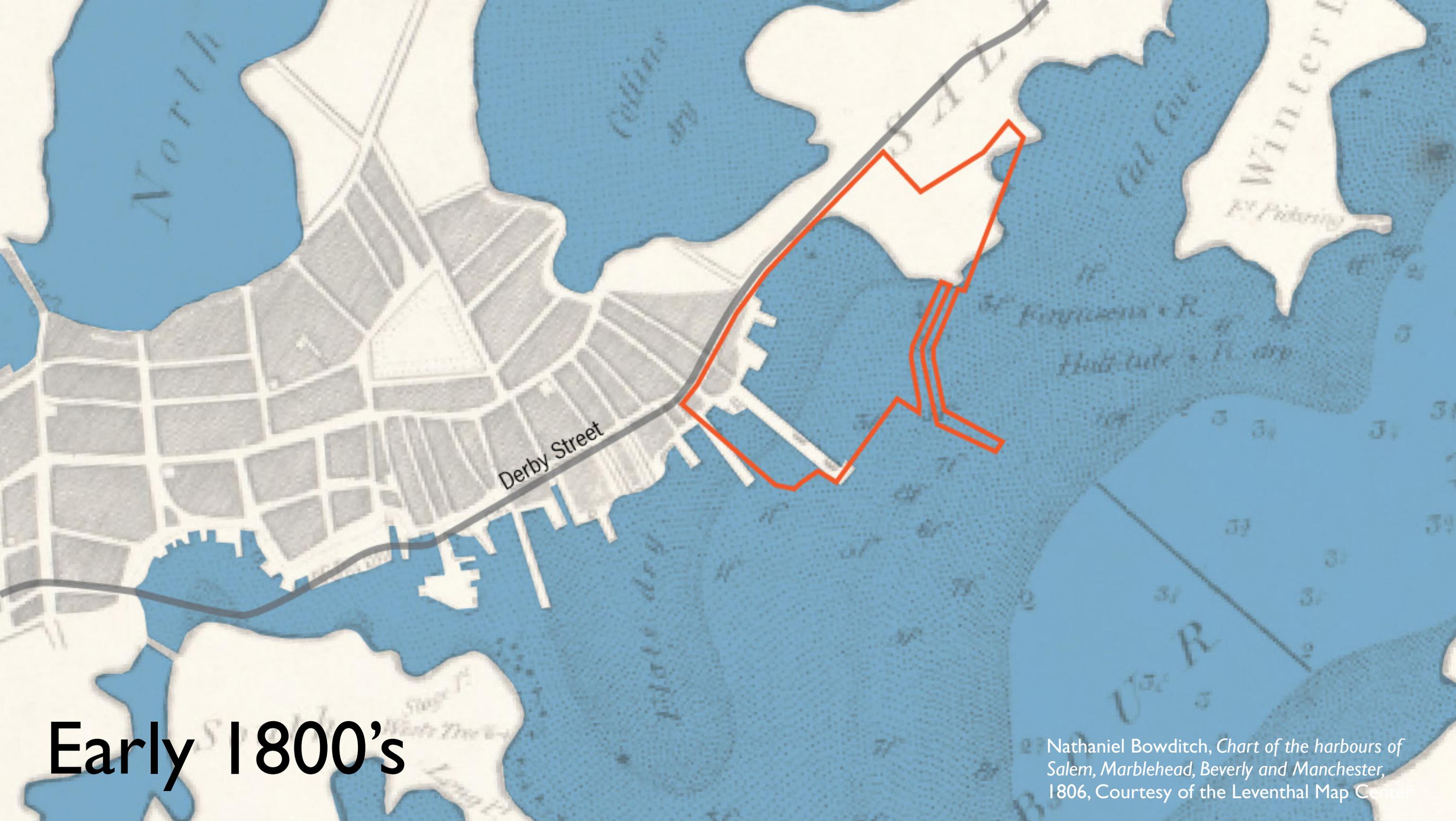
FOOTPRINT COMMITMENTS

- DEMOLITION OF EXISTING PART OF POWER PLANT NOT INTENDED FOR BENEFICIAL REUSE
- ENVIRONMENTAL ISSUES ON SITE:
IN CONFORMANCE WITH
THE MASSACHUSETTS CONTINGENCY PLAN
- NO NEW CHAIN LINK FENCES
- MAJOR CONSTRUCTION MATERIAL
DELIVERED BY WATER
- COMMUNITY BENEFITS AGREEMENT
- TAXES



1806

George Ropes Jr, *Crowninshield's Wharf*, 1806,
Courtesy of the Peabody Essex Museum



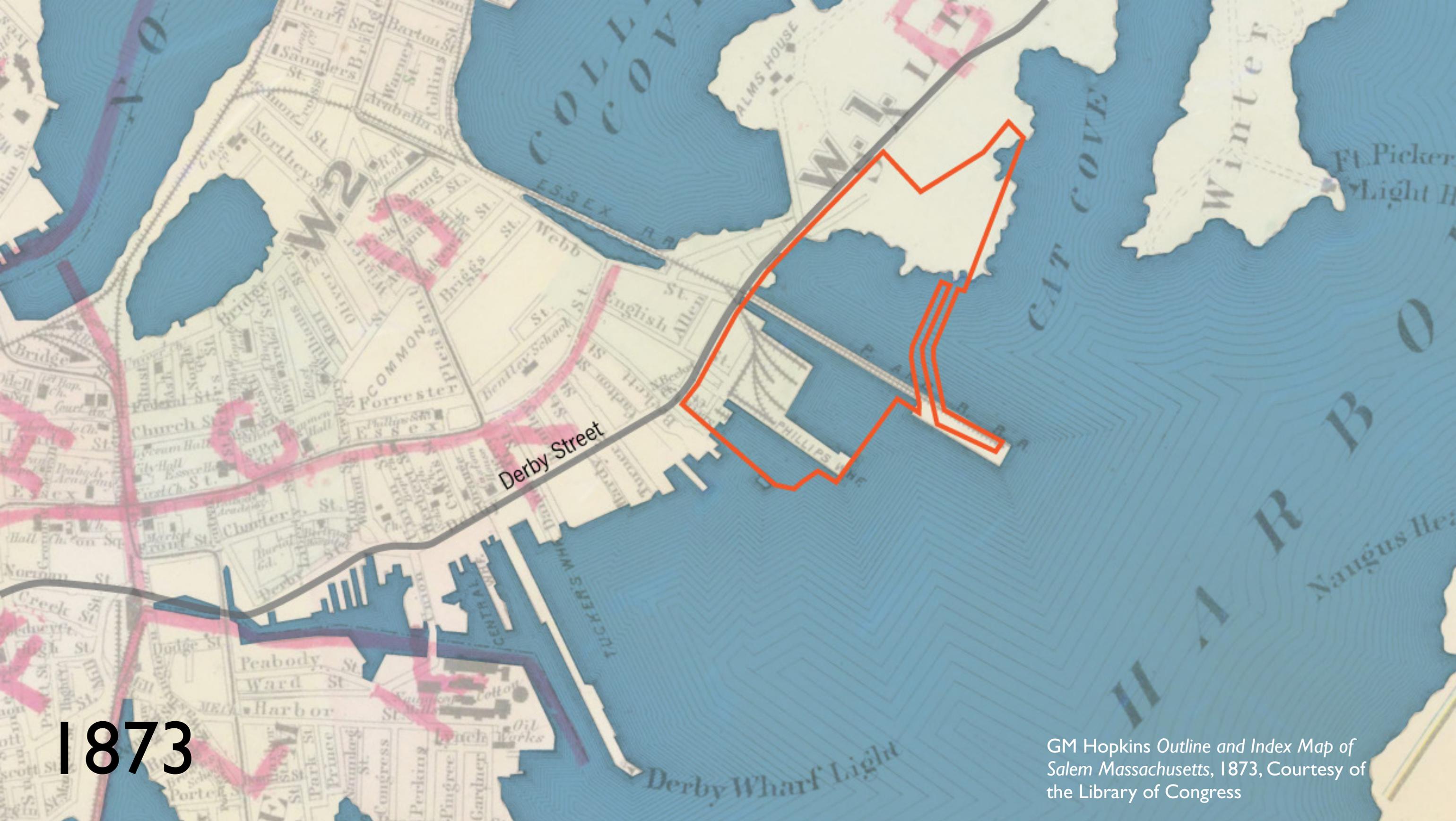
Early 1800's

Nathaniel Bowditch, *Chart of the harbours of Salem, Marblehead, Beverly and Manchester*, 1806, Courtesy of the Leventhal Map Center



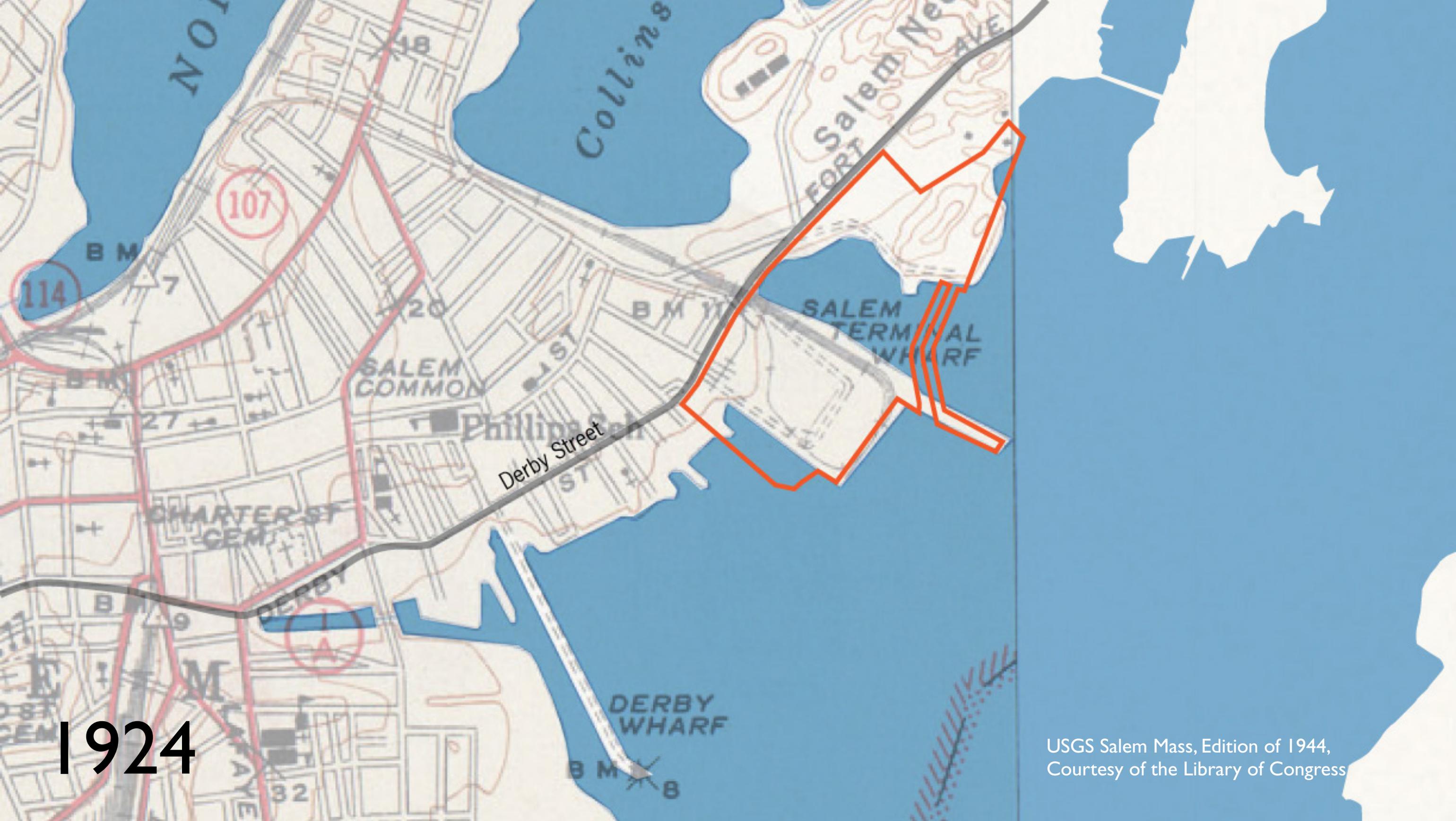
1847

HF Walling and Orlando Gray, *City of Salem, 1871*, Courtesy of the David Rumsey Historical Map Collection



1873

GM Hopkins Outline and Index Map of Salem Massachusetts, 1873, Courtesy of the Library of Congress



1924

USGS Salem Mass, Edition of 1944,
Courtesy of the Library of Congress



Derby Street

1948-1952

USGS Salem Mass, Edition of 1955,
Courtesy of the Library of Congress



Derby Street

2012

Google Maps, Salem MA 2012

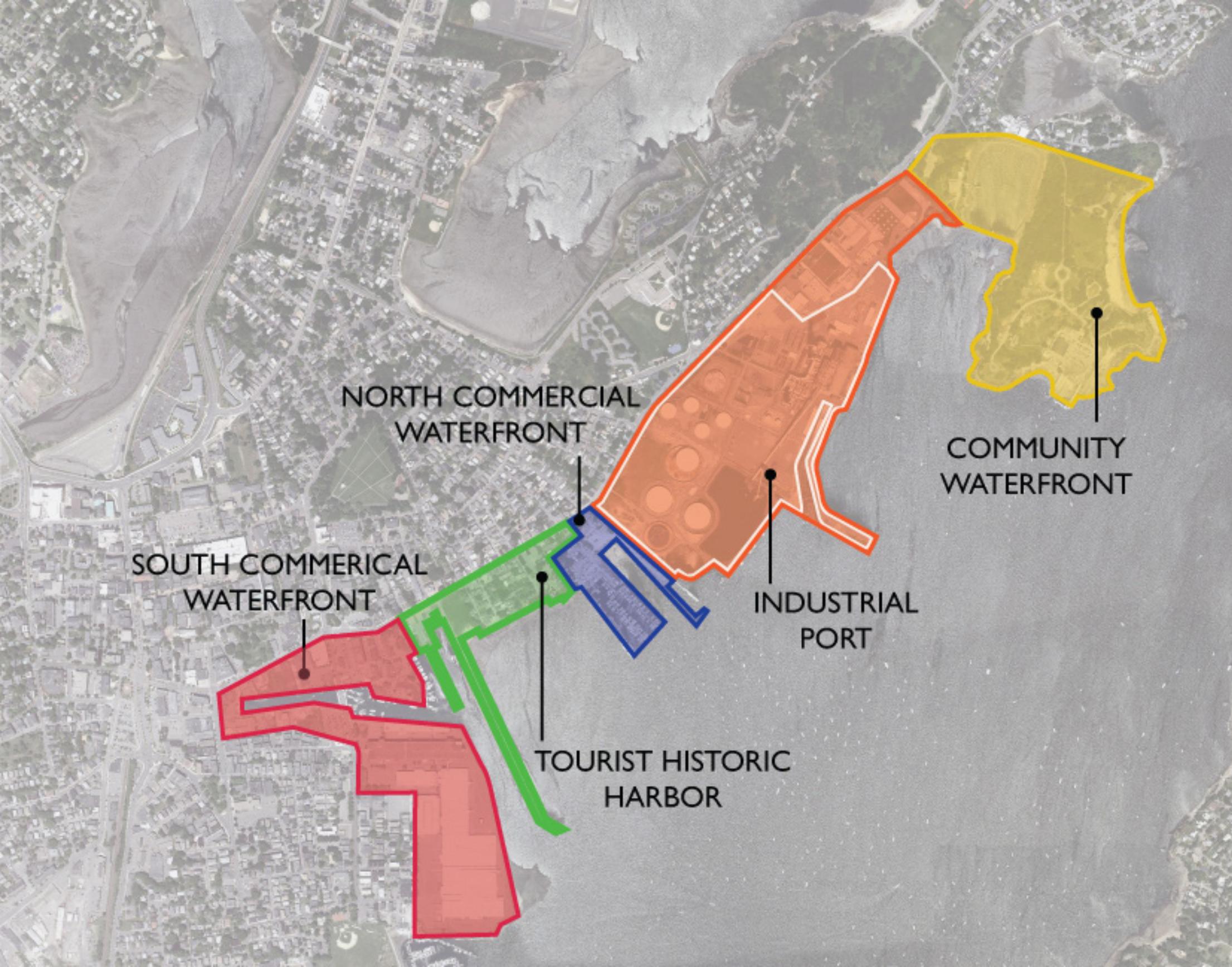
SIZE COMPARISON

Information from the
SASAKI Site Assessment
Study, January 2012



SALEM HARBOR MUNICIPAL PLAN

Information from the
SASAKI Site Assessment
Study, January 2012



NORTH COMMERCIAL
WATERFRONT

SOUTH COMMERCIAL
WATERFRONT

TOURIST HISTORIC
HARBOR

INDUSTRIAL
PORT

COMMUNITY
WATERFRONT

ILLUSTRATIVE MASTER PLAN

Information from the
SASAKI Site Assessment
Study, January 2012



LOCAL ZONING

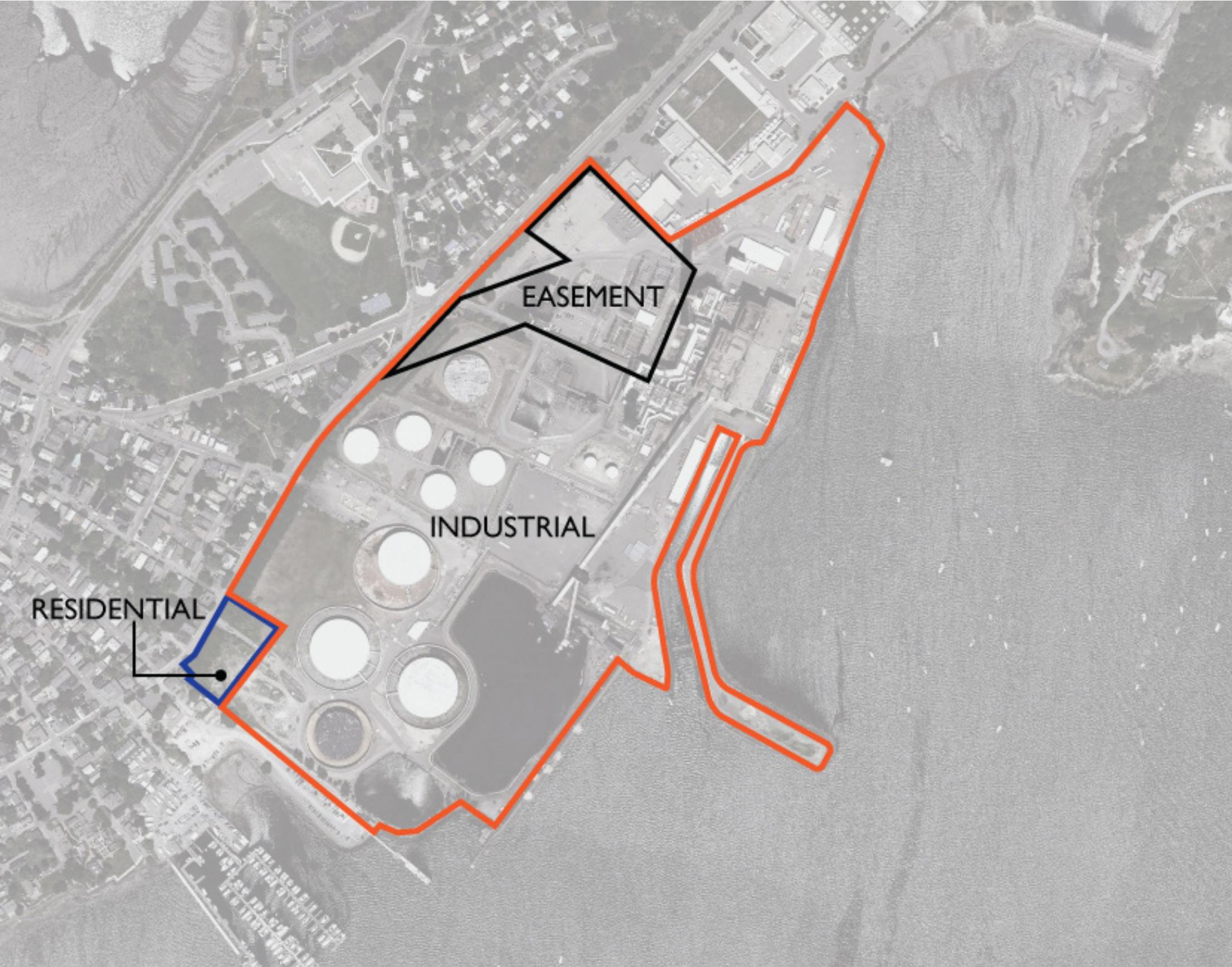
Total site is approx.
62 Acres

Site Breakdown:

Includes a 10 Acre
Easement for NGRID
switchyard and substation

Approximately 2 Acres
Zoned Residential

Majority Zoned Industrial





20 ACRES

FOOTPRINT SALEM HARBOR STATION

Facility Occupies

20 Acres

-or-

**32% of
total site**



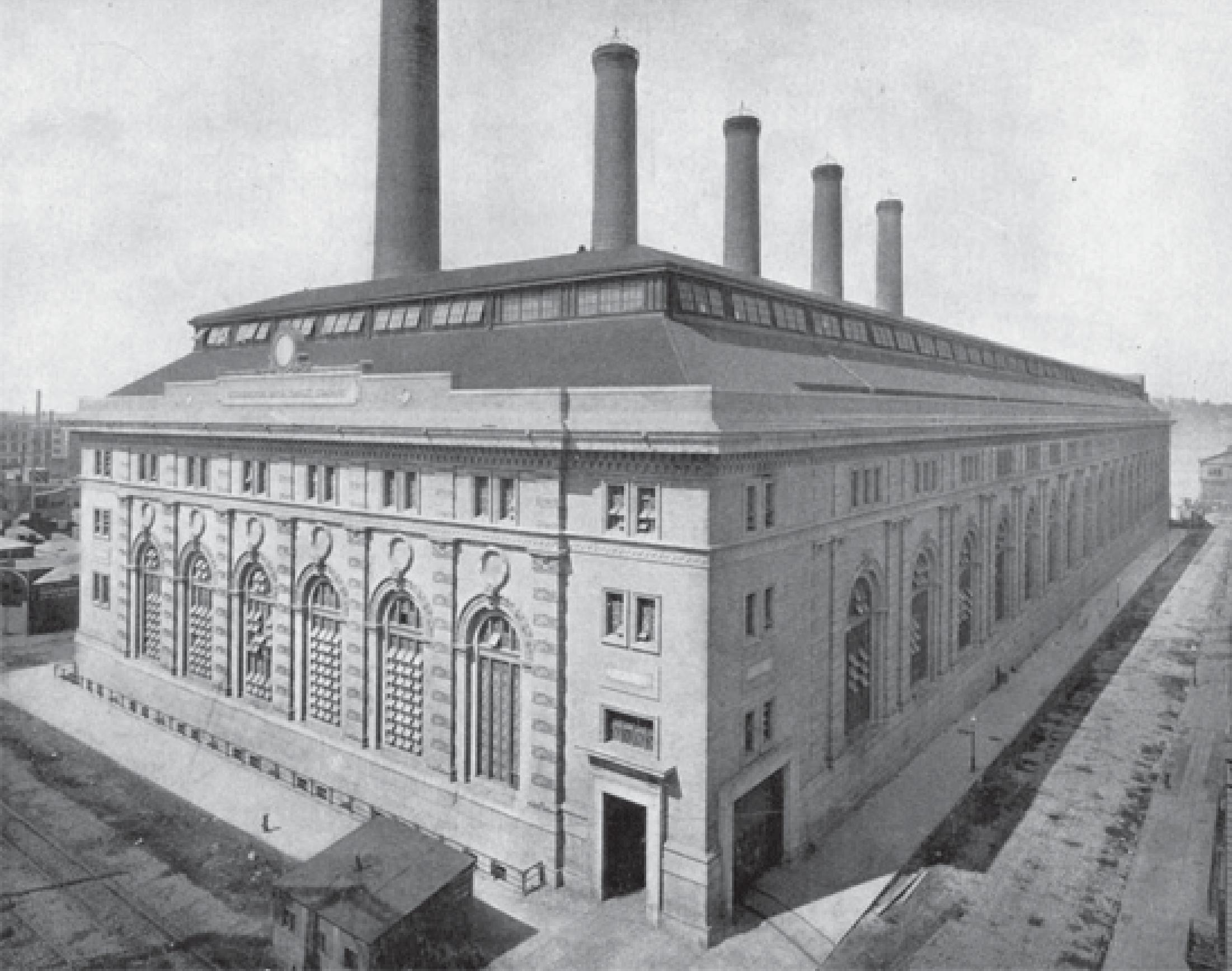
FOOTPRINT POWER STATION

Hardscape Occupies

13 Acres

-or-

**20% of
total site**



POWERPLANT ARCHITECTURE

IRT POWERHOUSE
New York City, 1904

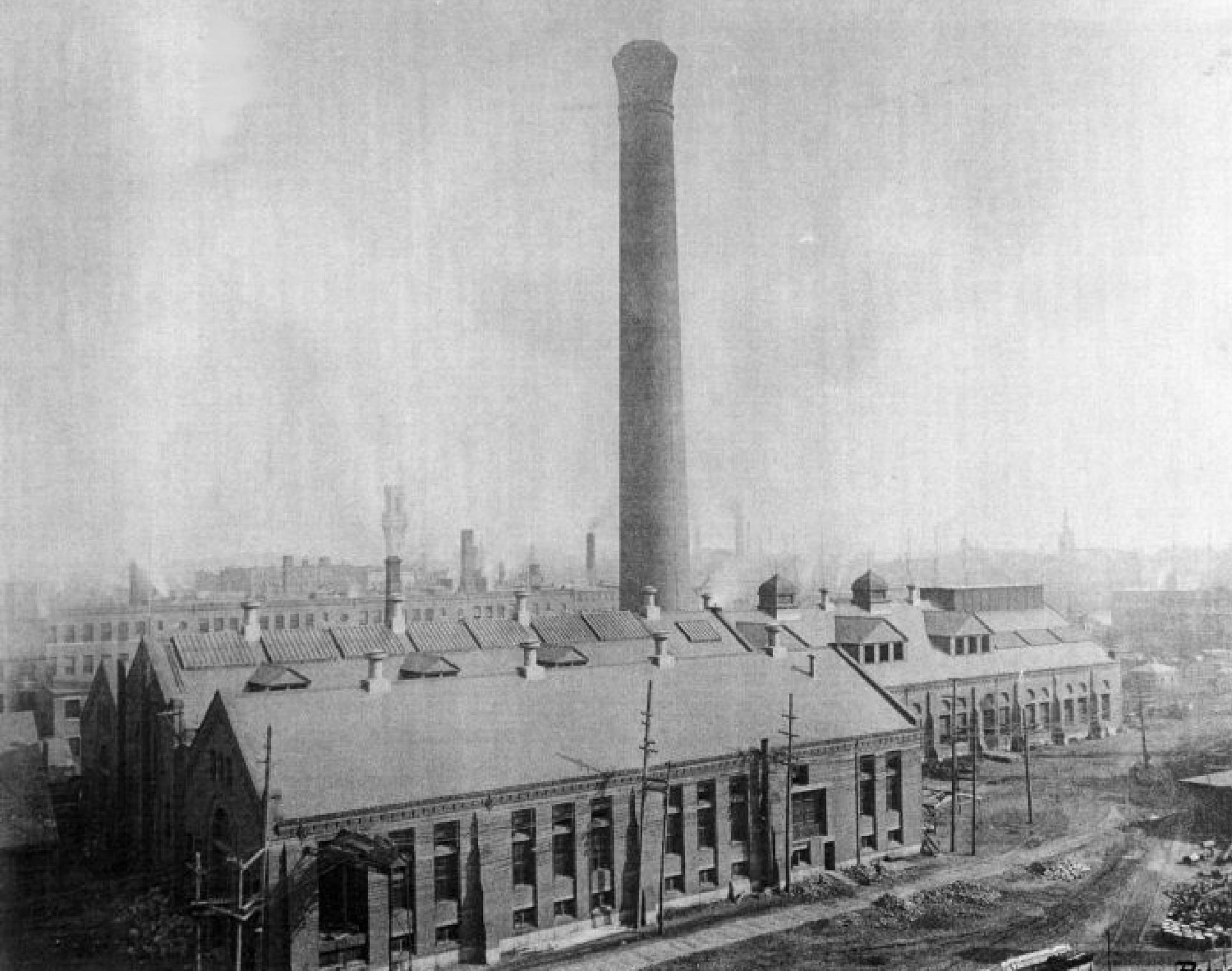
McKim Mead & White



POWERPLANT ARCHITECTURE

BANKSIDE POWER
STATION (now the Tate
Modern)
London, 1947

Sir Giles Gilbert Scott



POWERPLANT ARCHITECTURE

WEST END STREET
RAILWAY CENTRAL
POWER STATION
(now SoWa Arts District)
Boston, 1892

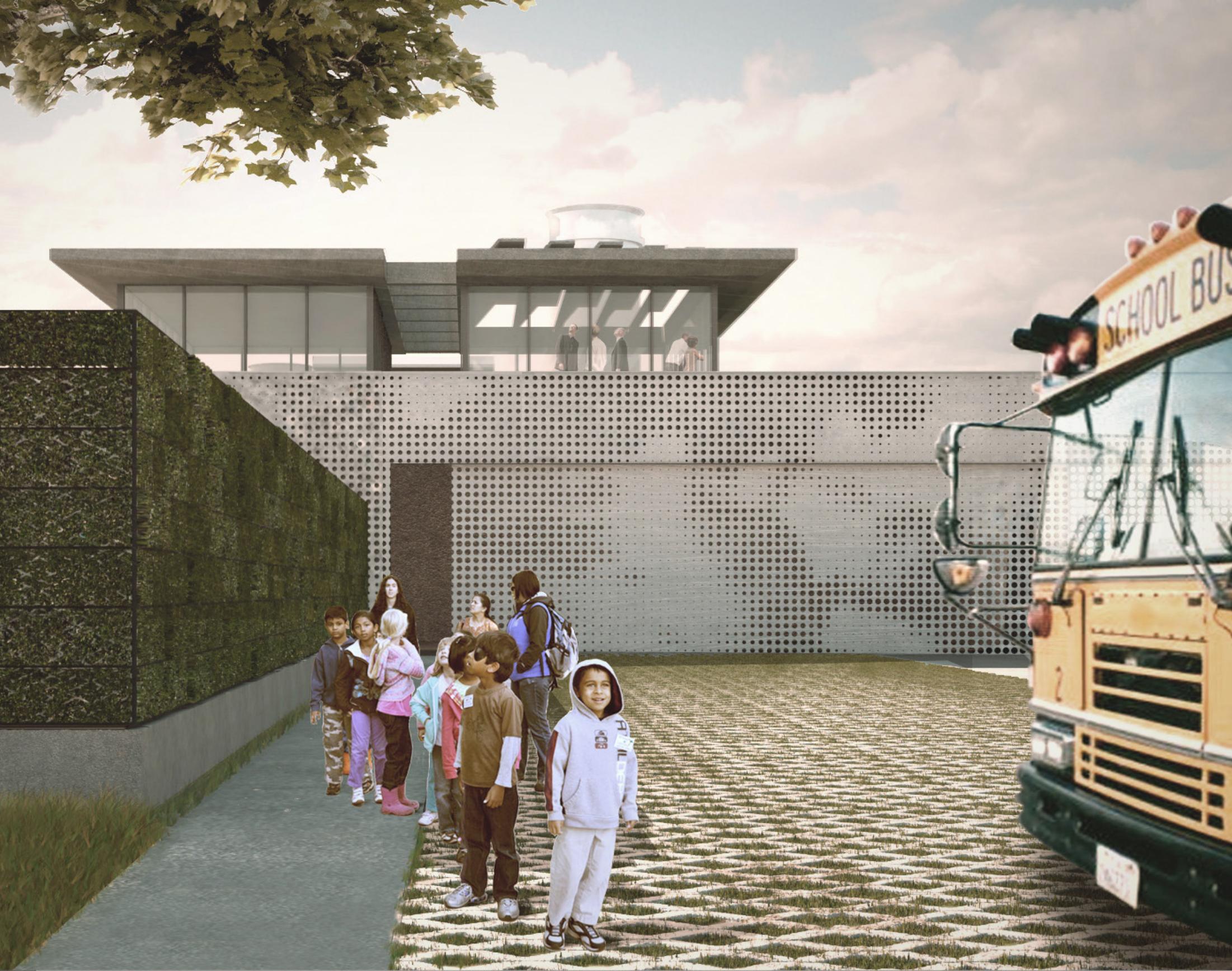
William G Preston



POWERPLANT ARCHITECTURE

GOWANUS
POWER PLAN
New York City, 2008

COOKFOX Architects



POWERPLANT ARCHITECTURE

GOWANUS
POWER PLAN
New York City, 2008

COOKFOX Architects

GAS COMPRESSOR

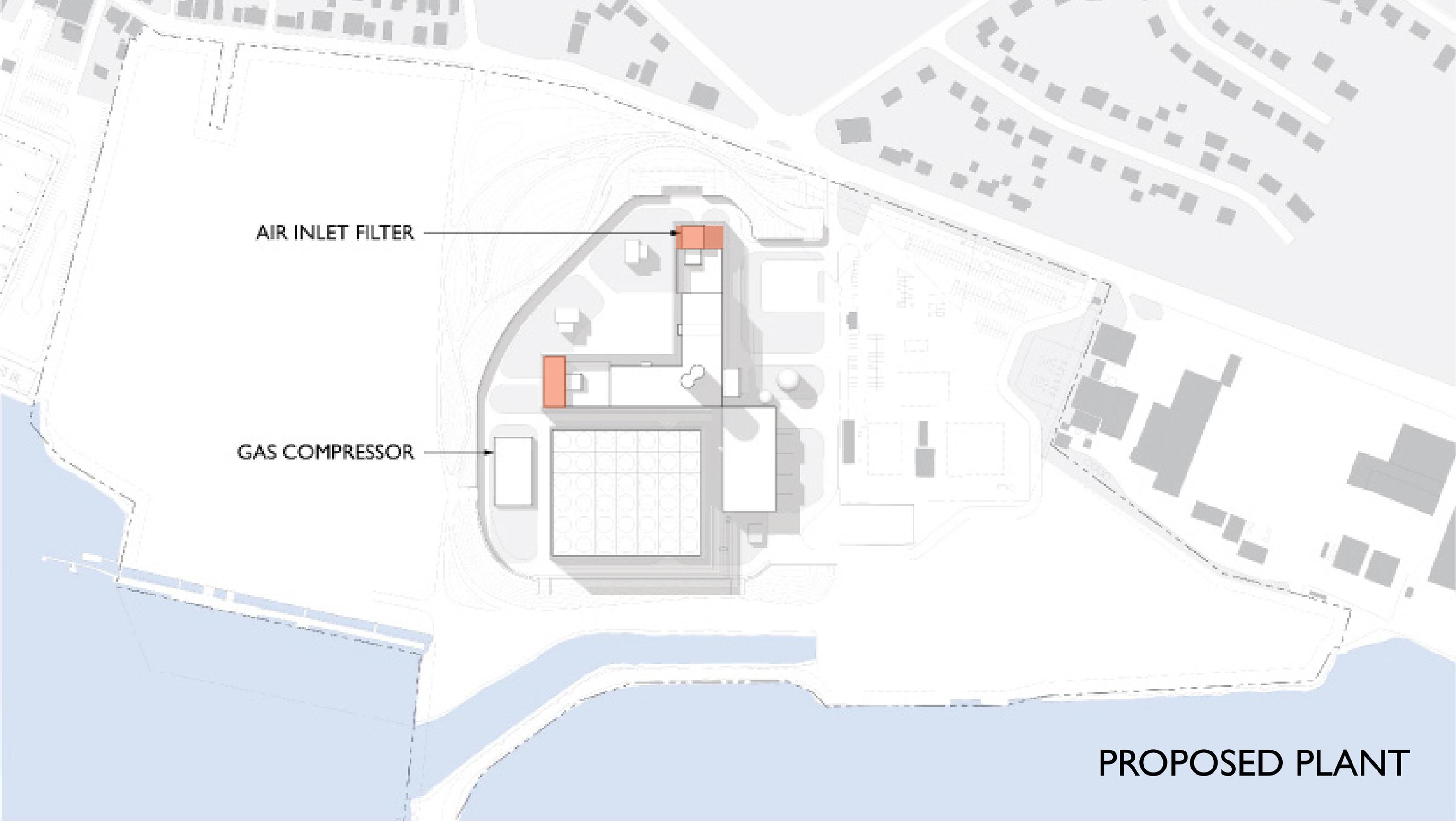


PROPOSED PLANT

AIR INLET FILTER

GAS COMPRESSOR

PROPOSED PLANT





AIR INLET FILTER

GAS TURBINE

GAS COMPRESSOR

SWITCHYARD

PROPOSED PLANT



AIR INLET FILTER

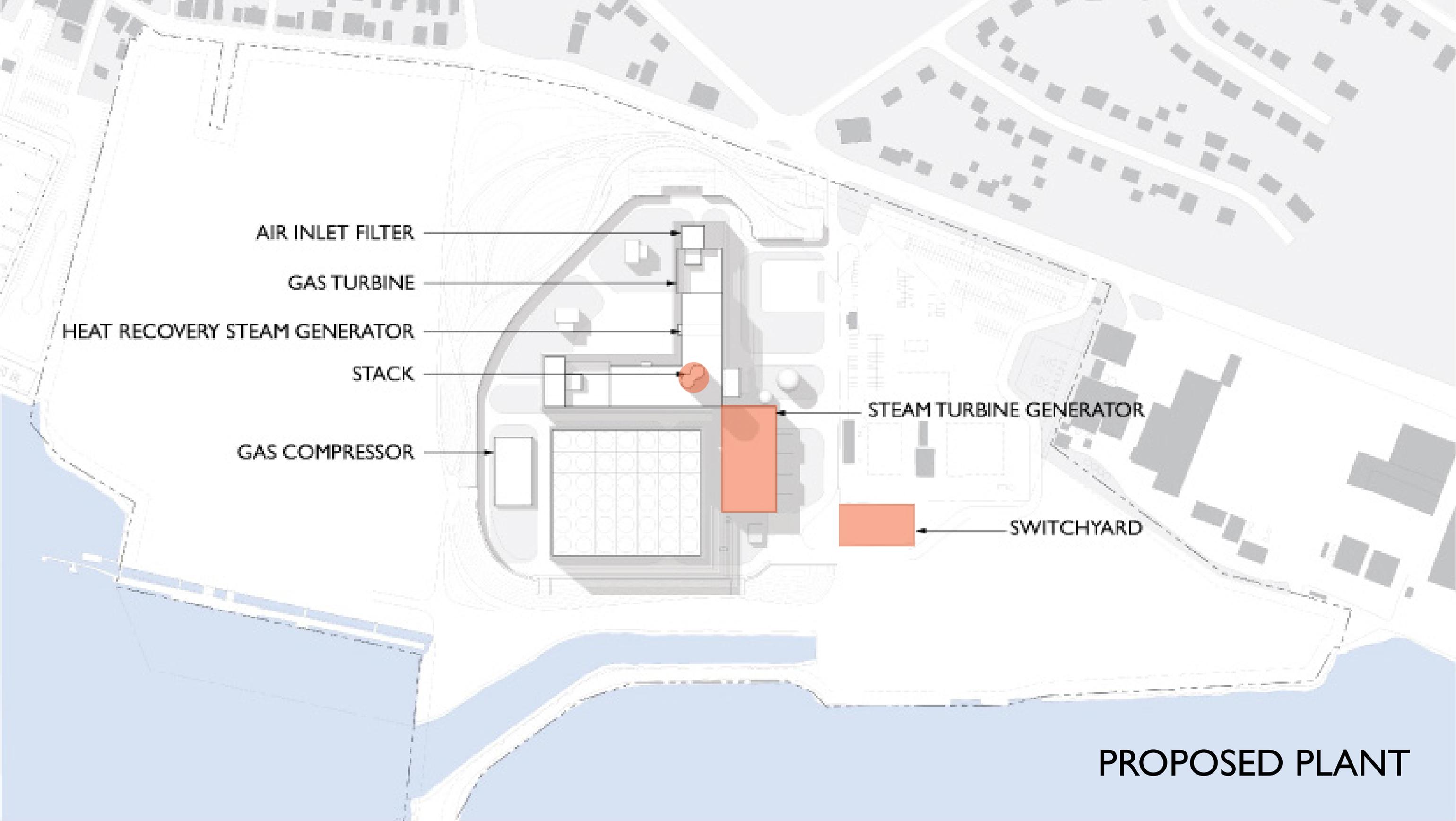
GAS TURBINE

HEAT RECOVERY STEAM GENERATOR

GAS COMPRESSOR

SWITCHYARD

PROPOSED PLANT



AIR INLET FILTER

GAS TURBINE

HEAT RECOVERY STEAM GENERATOR

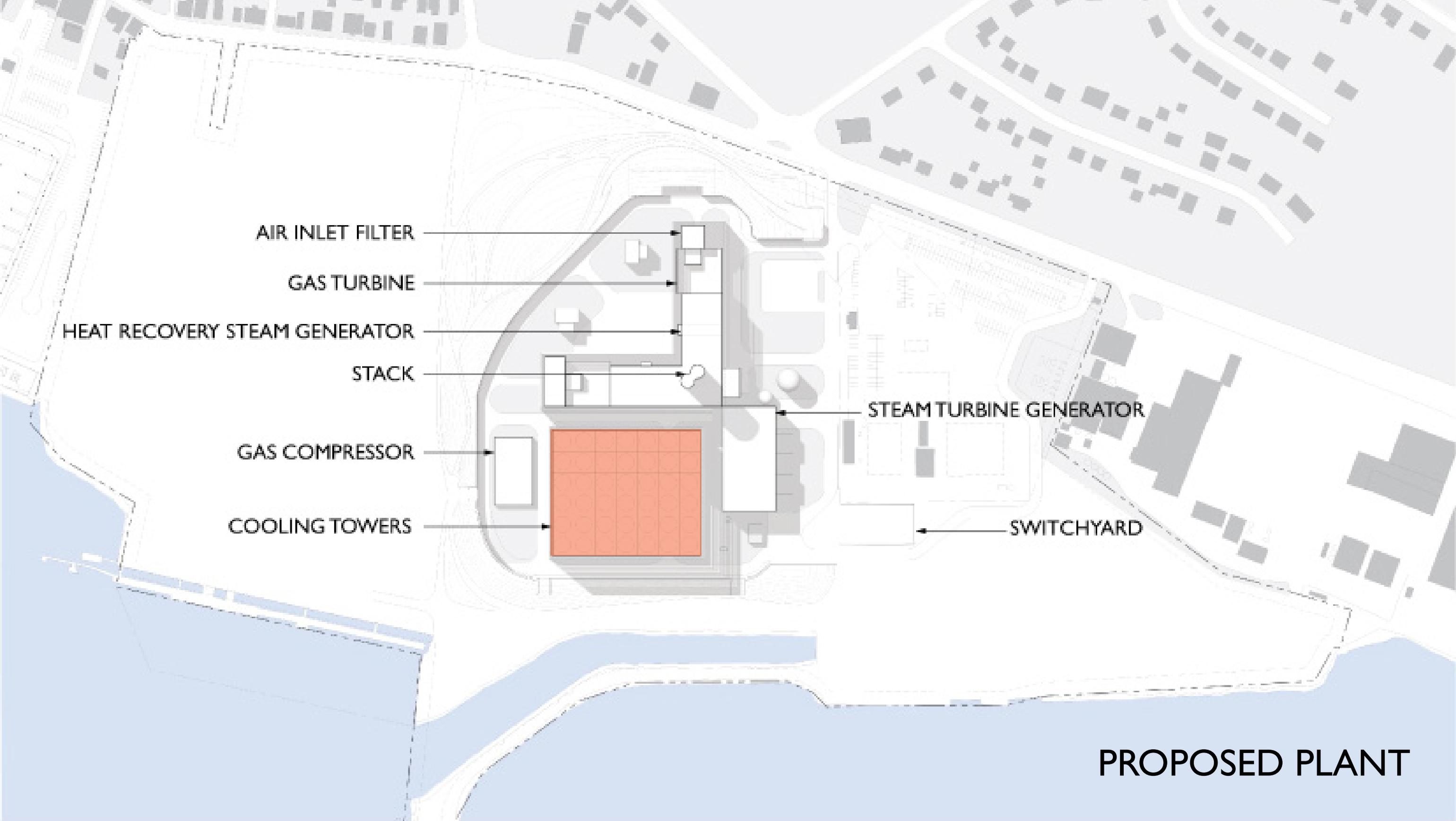
STACK

GAS COMPRESSOR

STEAM TURBINE GENERATOR

SWITCHYARD

PROPOSED PLANT



AIR INLET FILTER

GAS TURBINE

HEAT RECOVERY STEAM GENERATOR

STACK

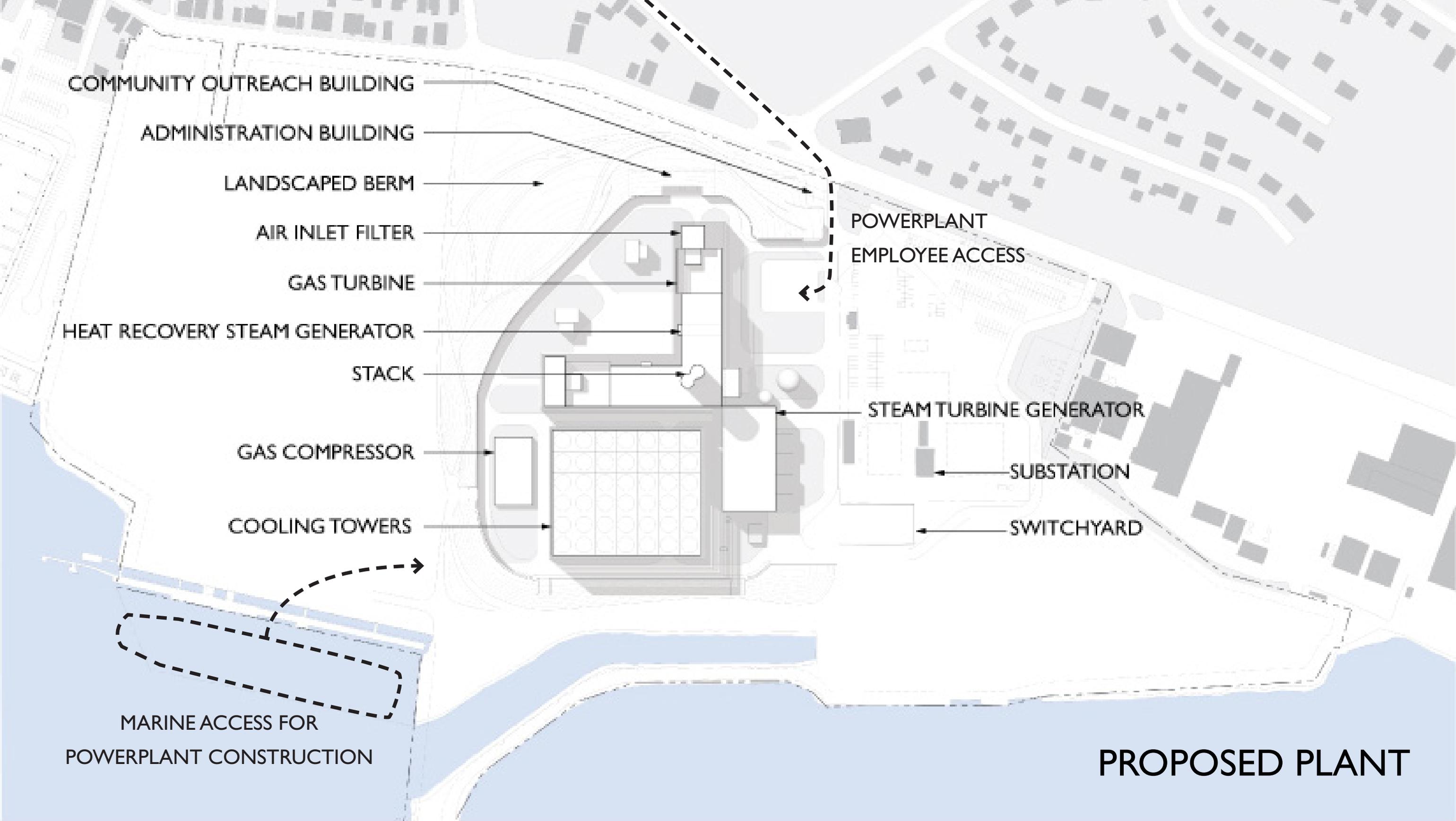
GAS COMPRESSOR

COOLING TOWERS

STEAM TURBINE GENERATOR

SWITCHYARD

PROPOSED PLANT



COMMUNITY OUTREACH BUILDING

ADMINISTRATION BUILDING

LANDSCAPED BERM

AIR INLET FILTER

GAS TURBINE

HEAT RECOVERY STEAM GENERATOR

STACK

GAS COMPRESSOR

COOLING TOWERS

POWERPLANT

EMPLOYEE ACCESS

STEAM TURBINE GENERATOR

SUBSTATION

SWITCHYARD

MARINE ACCESS FOR

POWERPLANT CONSTRUCTION

PROPOSED PLANT

PRELIMINARY STAGING PLAN

Stage I
Initial Site Preparation
Starts: 8/13 Ends: 3/14



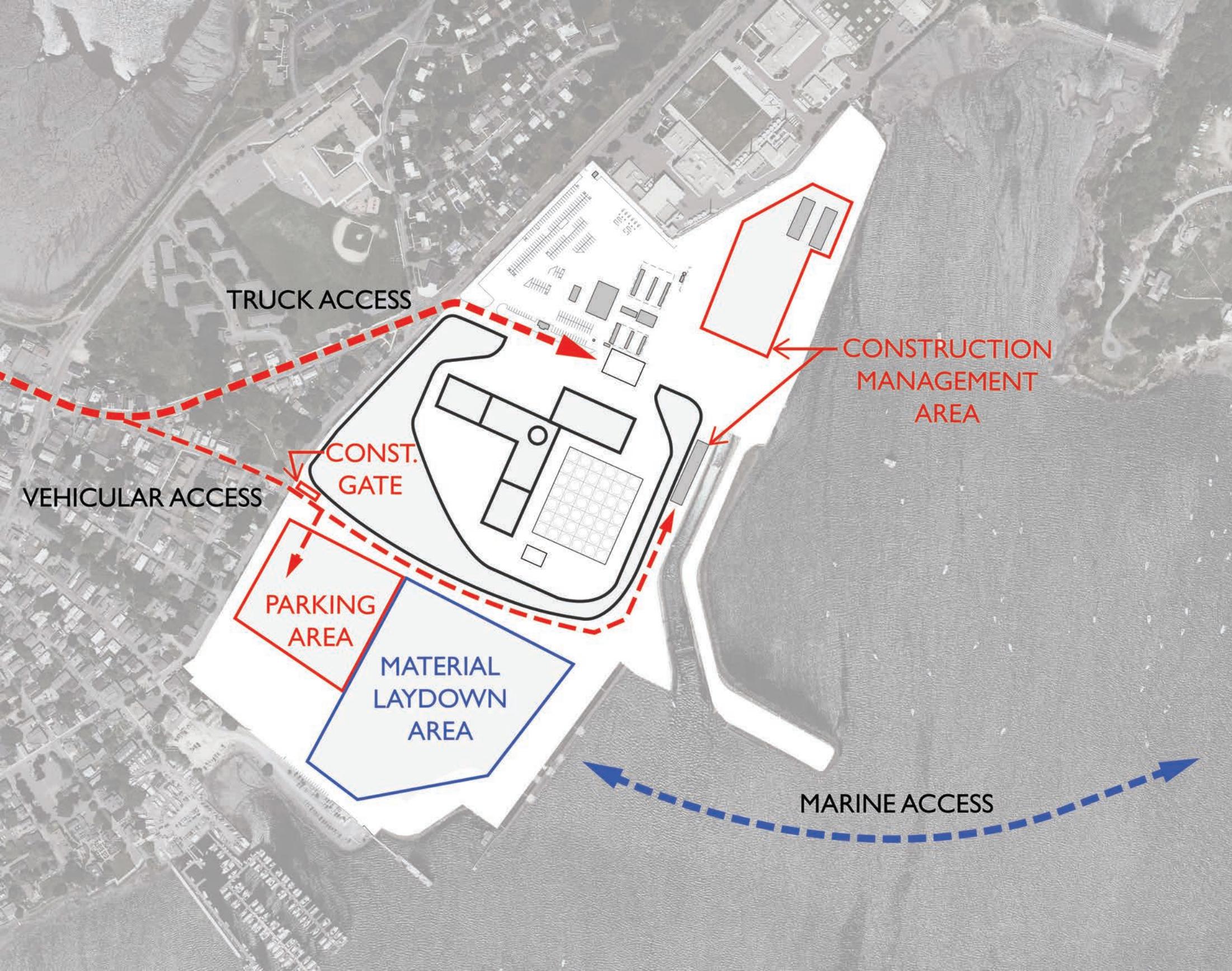
PRELIMINARY STAGING PLAN

Stage 1
Initial Site Preparation
Starts: 8/13 Ends: 3/14

Stage 2
Site Preparation
Starts: 3/14 Ends: 1/15



PRELIMINARY STAGING PLAN



Stage 1
Initial Site Preparation
Starts: 8/13 Ends: 3/14

Stage 2
Site Preparation
Starts: 3/14 Ends: 1/15

Stage 3
Foundation Construction
Starts: 7/14 Ends: 12/14

Stage 4
Above Ground Construction
Starts: 12/14 Ends: 4/16



PRELIMINARY STAGING PLAN

Stage 1
Initial Site Preparation
Starts: 8/13 Ends: 3/14

Stage 2
Site Preparation
Starts: 3/14 Ends: 1/15

Stage 3
Foundation Construction
Starts: 7/14 Ends: 12/14

Stage 4
Above Ground Construction
Starts: 12/14 Ends: 4/16

Stage 5
Facility Operations Begin
April 2016

PRELIMINARY STAGING PLAN

Stage 1
Initial Site Preparation
Starts: 8/13 Ends: 3/14

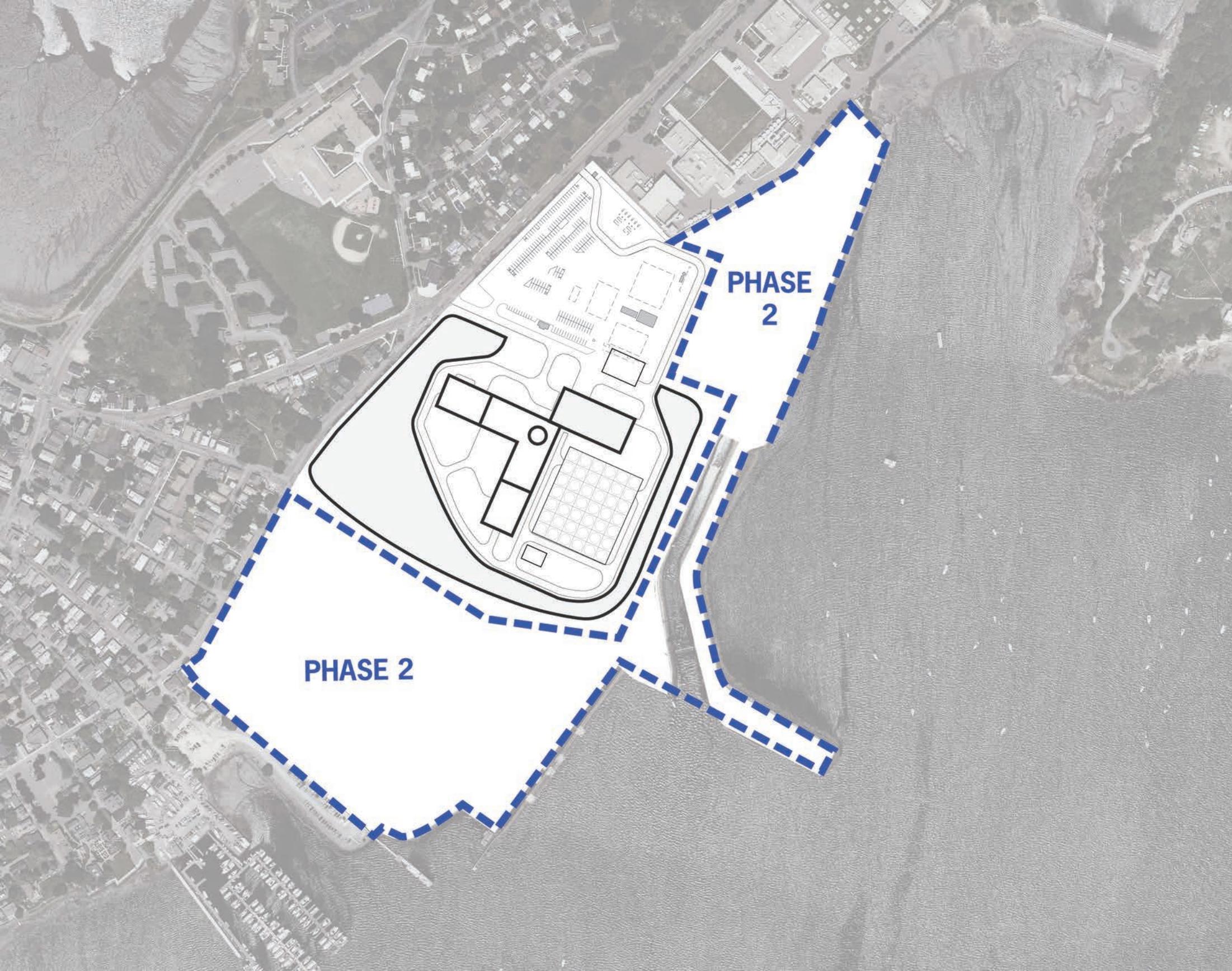
Stage 2
Site Preparation
Starts: 3/14 Ends: 1/15

Stage 3
Foundation Construction
Starts: 7/14 Ends: 12/14

Stage 4
Above Ground Construction
Starts: 12/14 Ends: 4/16

Stage 5
Facility Operations Begin
April 2016

Phase 2





VISUAL IMPACT STUDY LOCATIONS

- 1) Bentley Elementary
- 2) Winter Island
- 3) Marblehead
- 4) Cat Cove



I) View from Bentley Elementary



2) View from Winter Island



May 4th 2012



Proposed

3) View from Marblehead

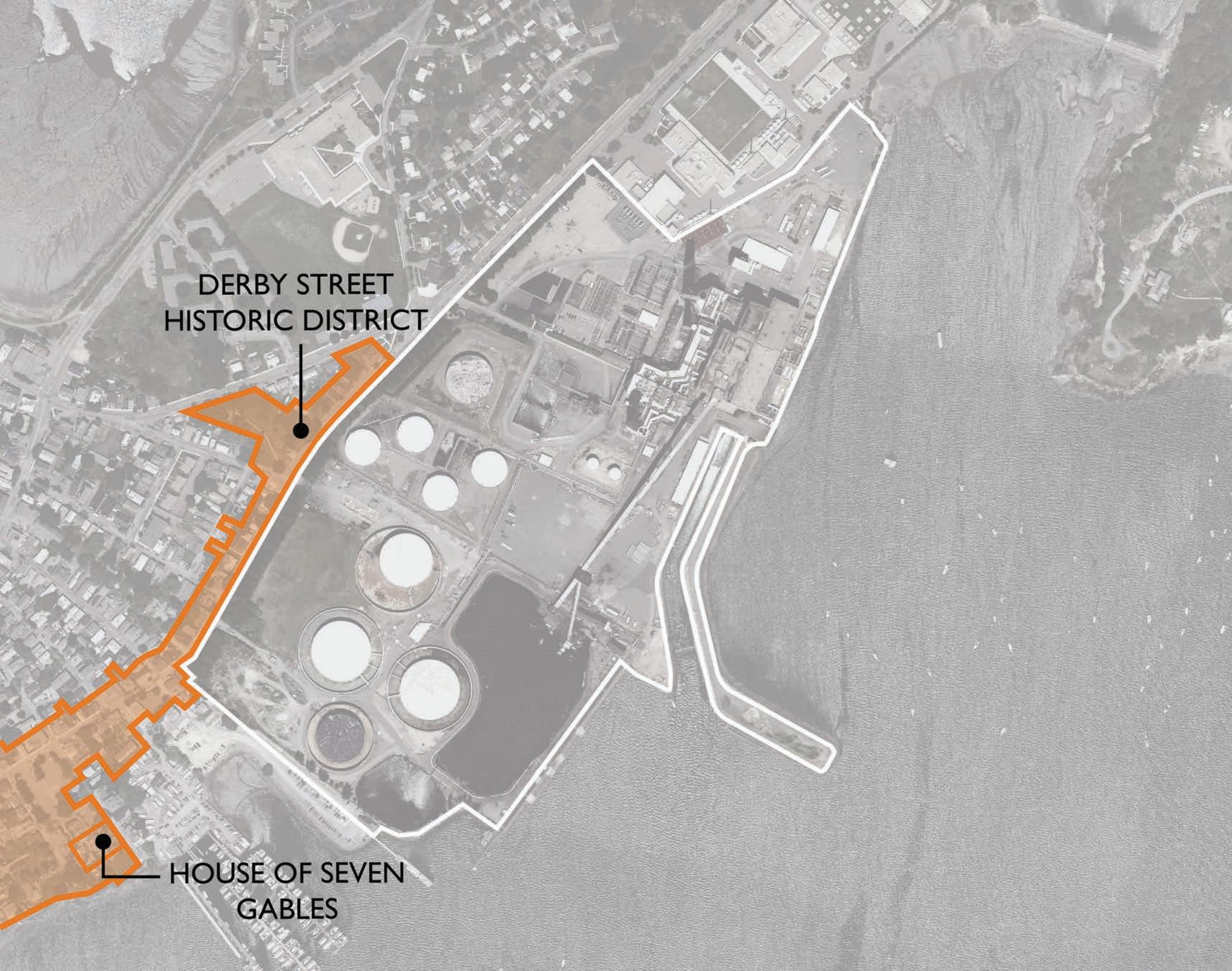


4) View from Cat Cove

DERBY STREET HISTORIC DISTRICT

Established in 1974, added to the National Register of Historic Places in 1976.

Includes works by noted Salem architect Samuel McIntire and the House of Seven Gables



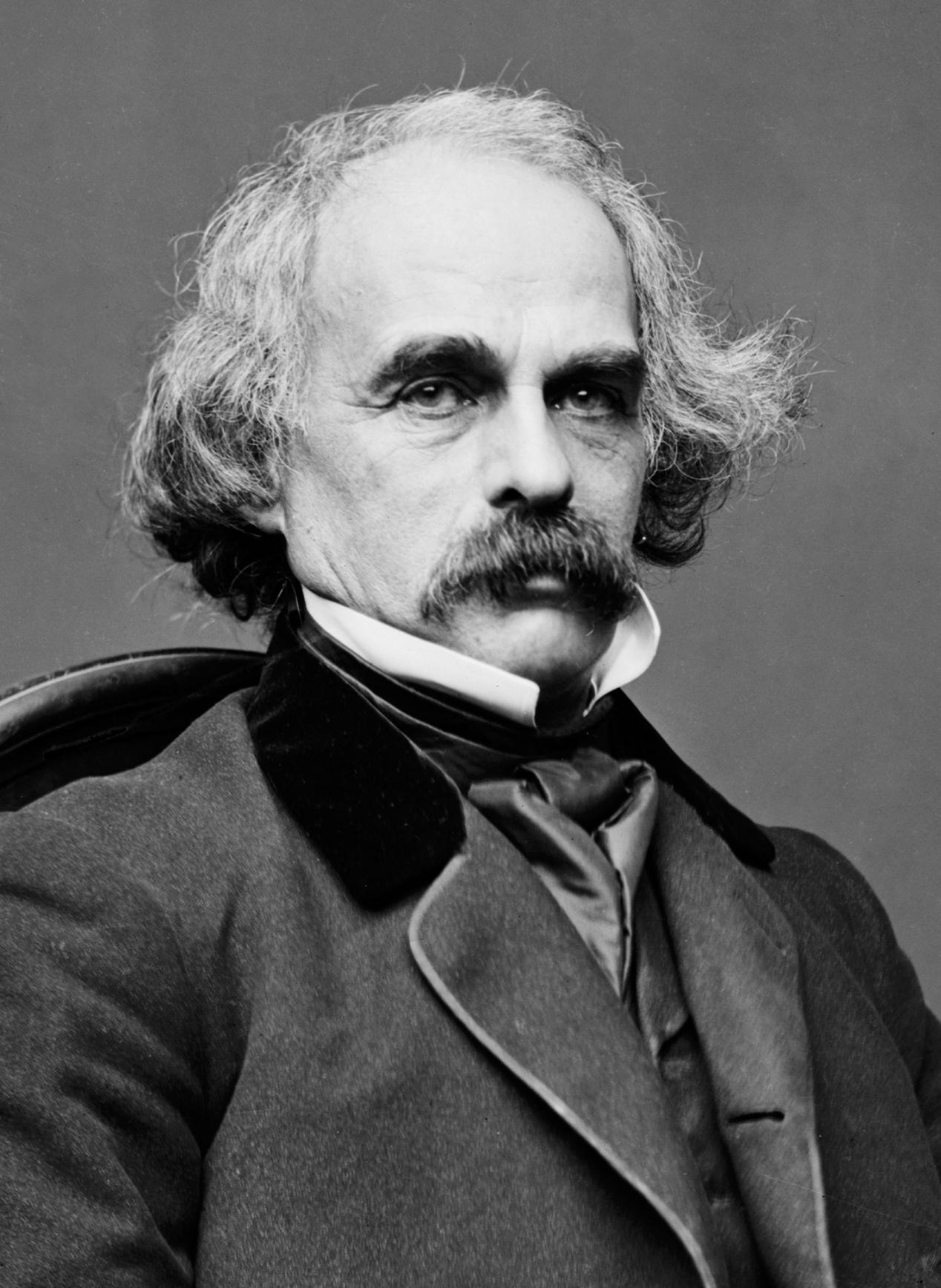
DERBY STREET HISTORIC DISTRICT

HOUSE OF SEVEN GABLES



1667

House of the Seven Gables
Turner Street



**NATHANIEL
HAWTHORNE**
(1804-1864)

**“THE BOOK MAY BE READ STRICTLY AS A
ROMANCE, HAVING A GREAT DEAL MORE
TO DO WITH THE CLOUDS OVERHEAD
THAN WITH ANY PORTION OF THE
ACTUAL SOIL OF THE COUNTY OF ESSEX.”**

Lenox, Jan 27, 1851



1780

Hawkes House
Derby Street Historic District

SAMUEL MCINTIRE (1757-1811)

Local Craftsman and
Architect who worked in
the Federal Style.



OTHER
MCINTIRE
WORKS IN
SALEM

1792

Peirce-Nichols House
McIntire Historic District





1805

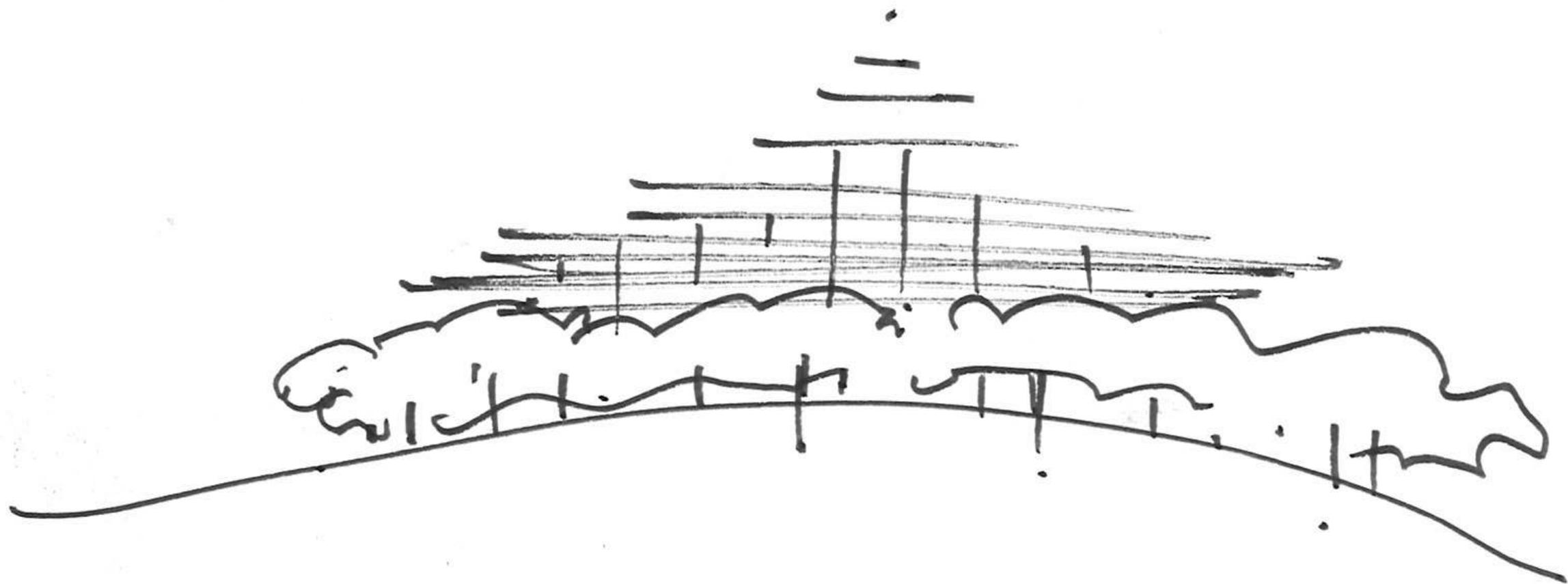
Gardner-Pingree House
Essex Institute Historic District

“There is no visible roof at all: the balustrade of the late Georgian roof has been moved out to the very edge, to frame the facade like a lacy cornice.”

Kostof, Spiro, *A History of Architecture*, Oxford University Press 1985



E H Derby House, 1798



ARCHITECTURAL CONCEPT

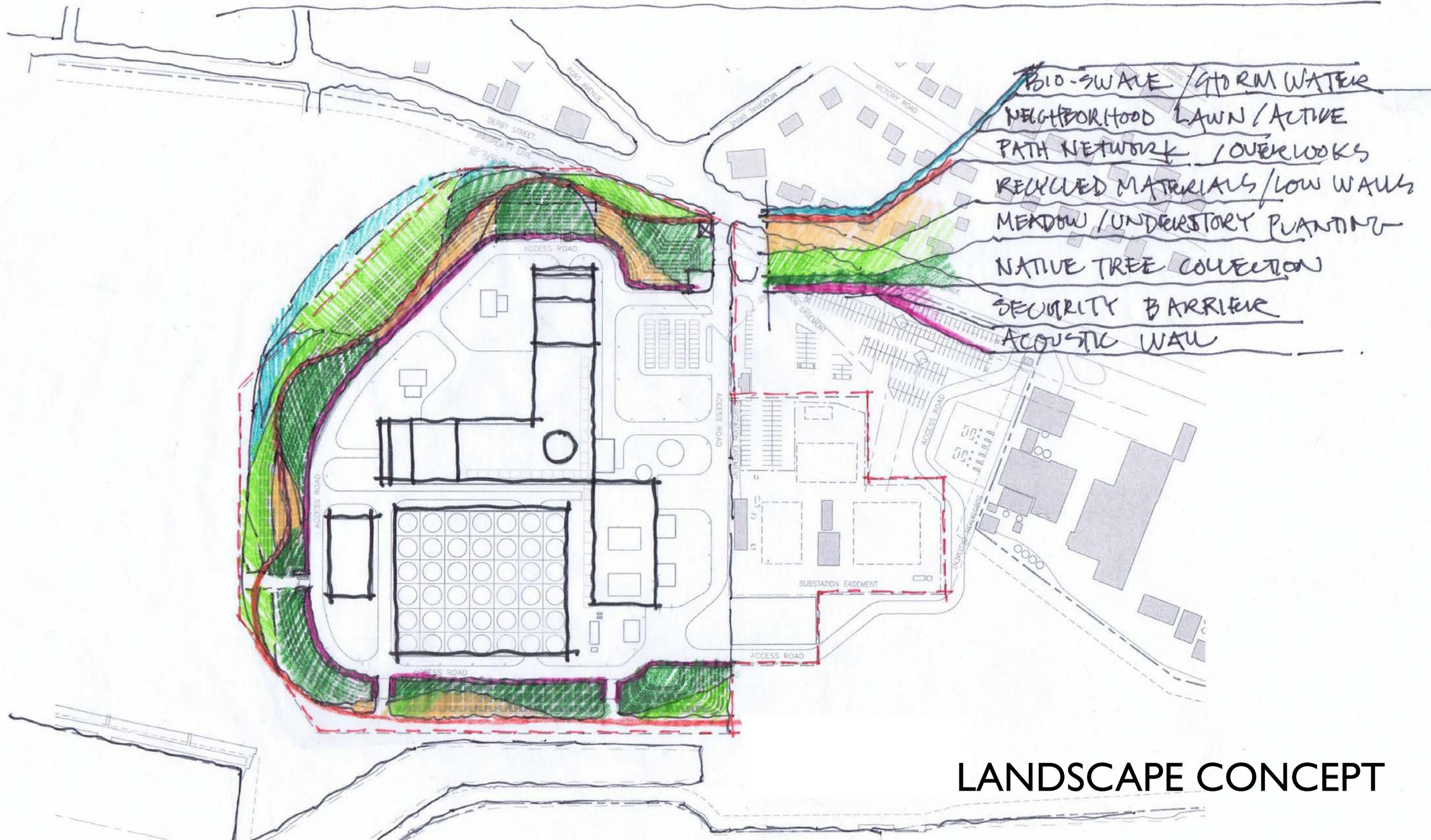


LANDFORM PRECEDENTS

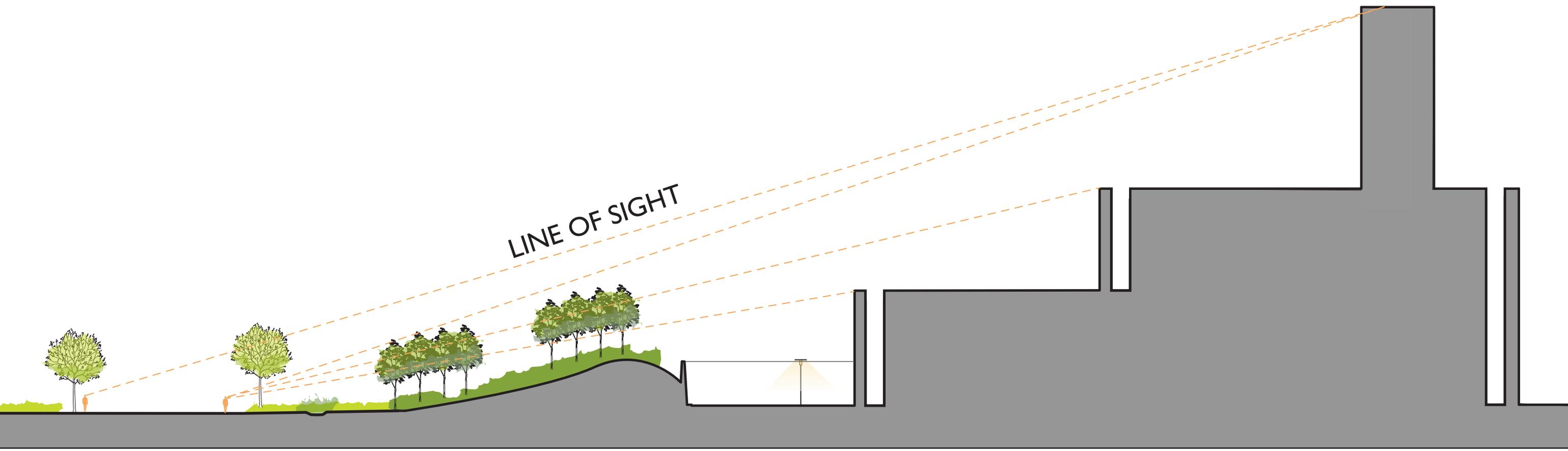


PLANTINGS PRECEDENTS

LANDSCAPE RIBBON



LANDSCAPE CONCEPT



LINE OF SIGHT

DERBY STREET

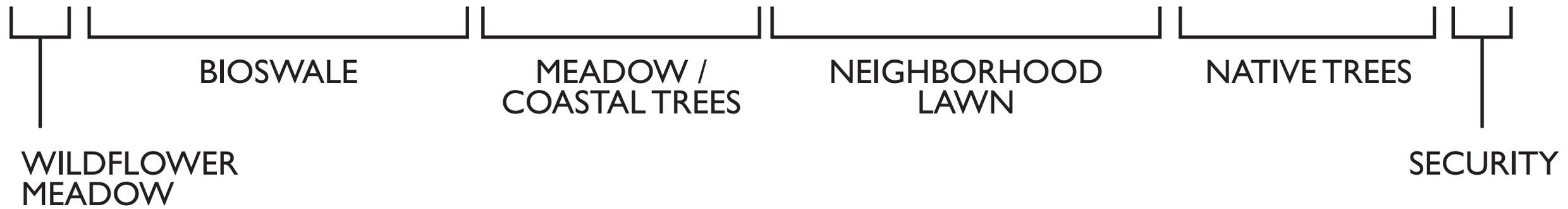
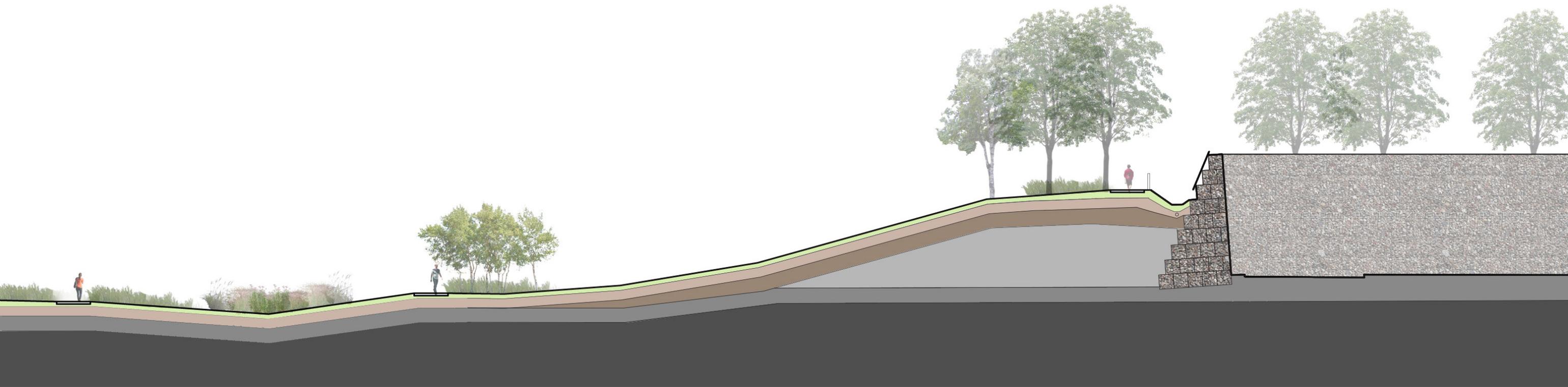
LANDSCAPED BERM

MAINTENANCE AREA

POWER PLANT

SECURITY

LANDSCAPE CONCEPT



ENLARGED SECTION

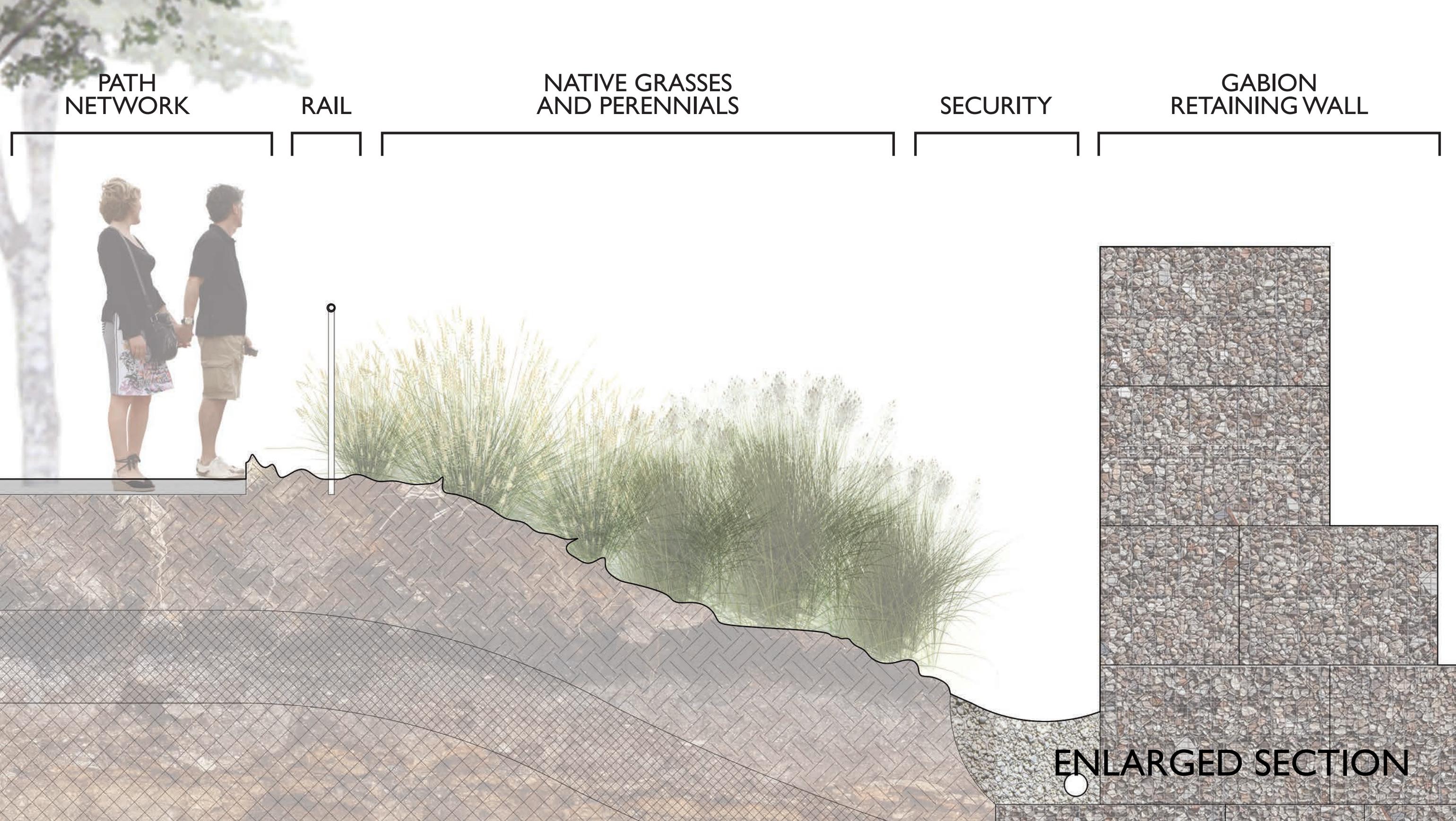
PATH NETWORK

RAIL

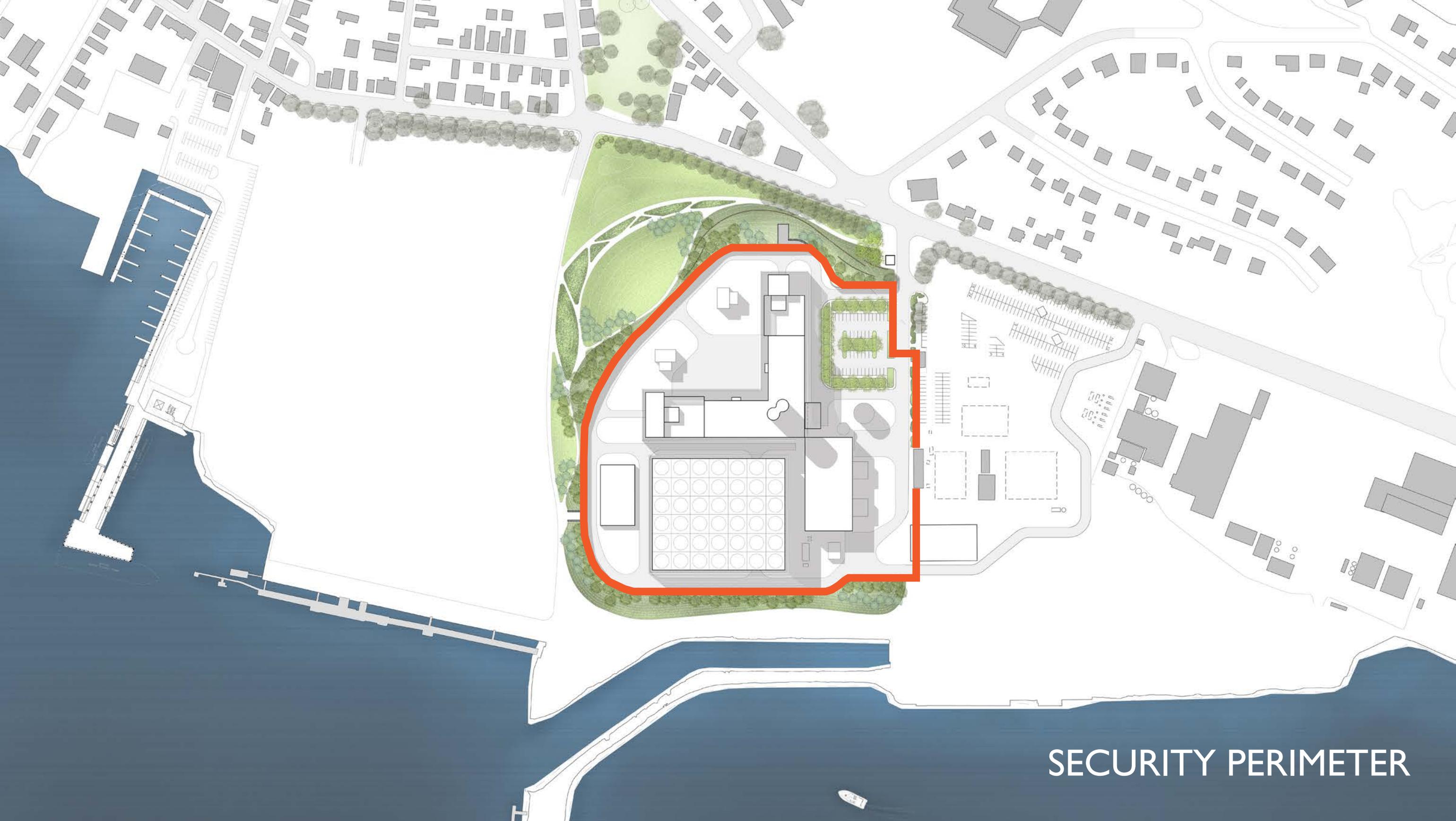
NATIVE GRASSES AND PERENNIALS

SECURITY

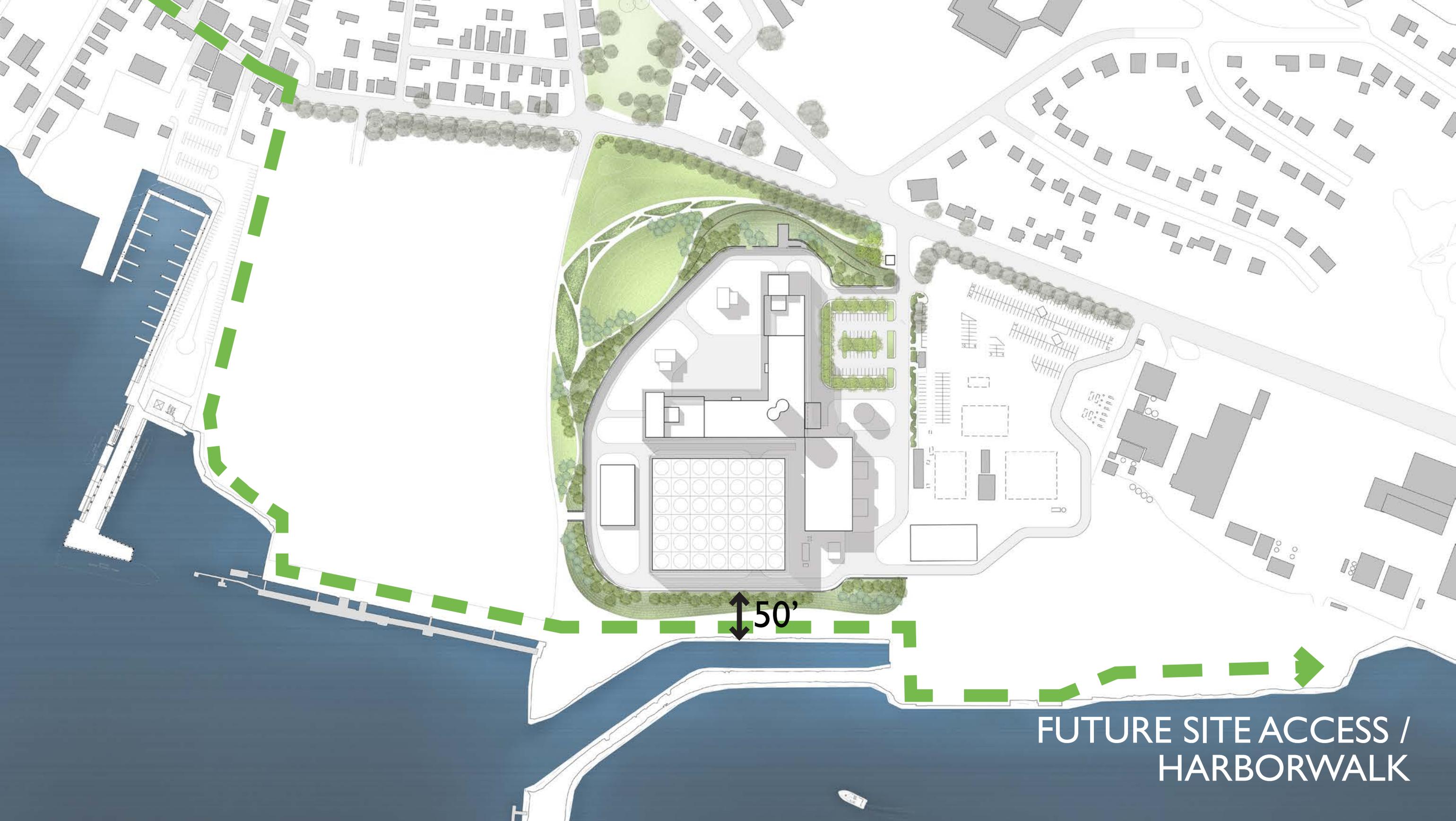
GABION RETAINING WALL



ENLARGED SECTION



SECURITY PERIMETER



↕ 50'

FUTURE SITE ACCESS /
HARBORWALK



PERSPECTIVES



**I) VIEW FROM INTERSECTION OF
DERBY STREET AND ENGLISH STREET**

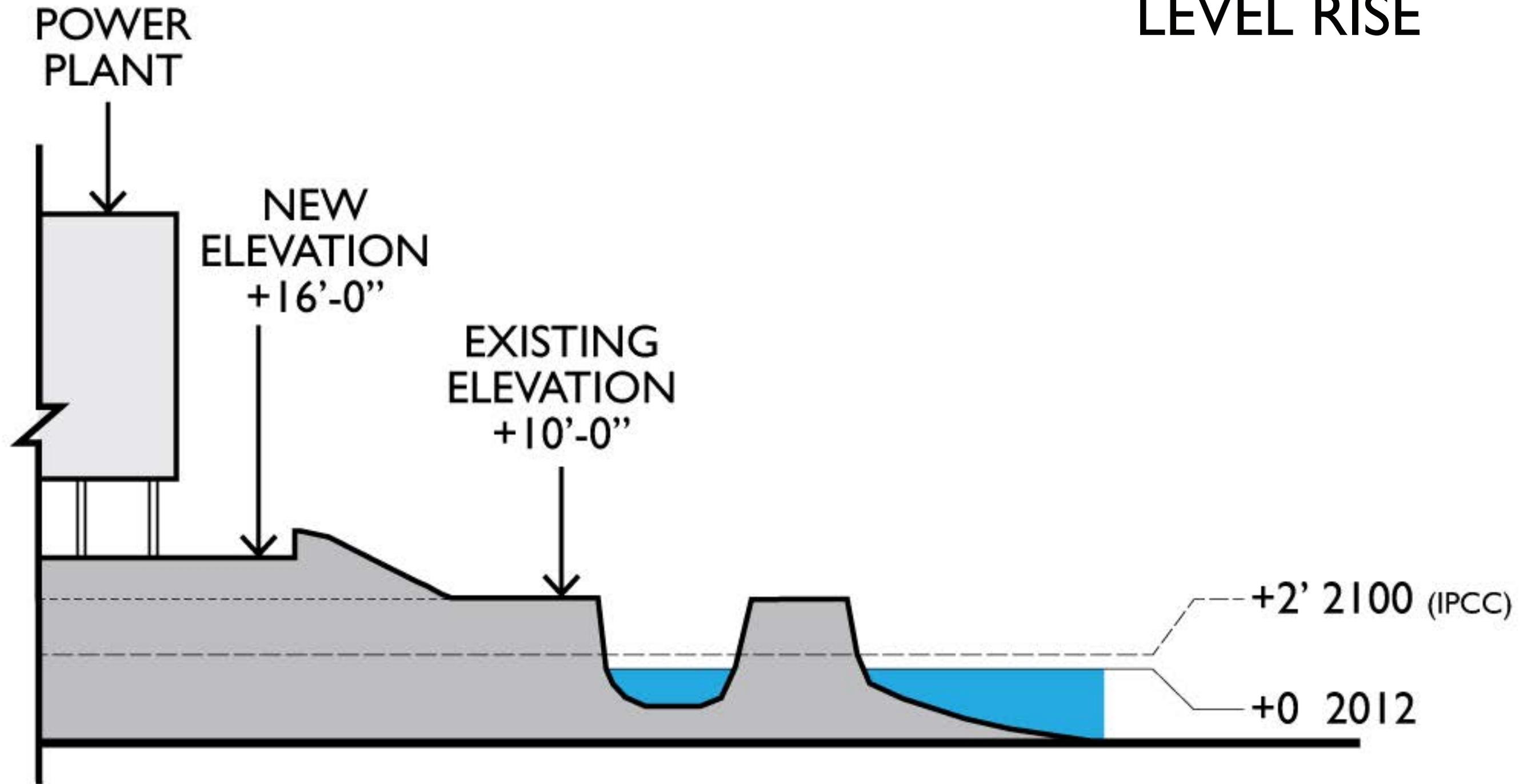


**2) VIEW FROM INTERSECTION OF
DERBY STREET AND FORT AVENUE**



3) VIEW ACROSS CAT COVE
FROM WINTER ISLAND

EXPECTED SEA LEVEL RISE



WATER USE COMPARISON

119,000,000 gallons
of sea water per day

+/- 425,000 gallons of
potable water per day



EXISTING PLANT

WATER USE COMPARISON

119,000,000 gallons of sea water per day

+/- 425,000 gallons of potable water per day



EXISTING PLANT

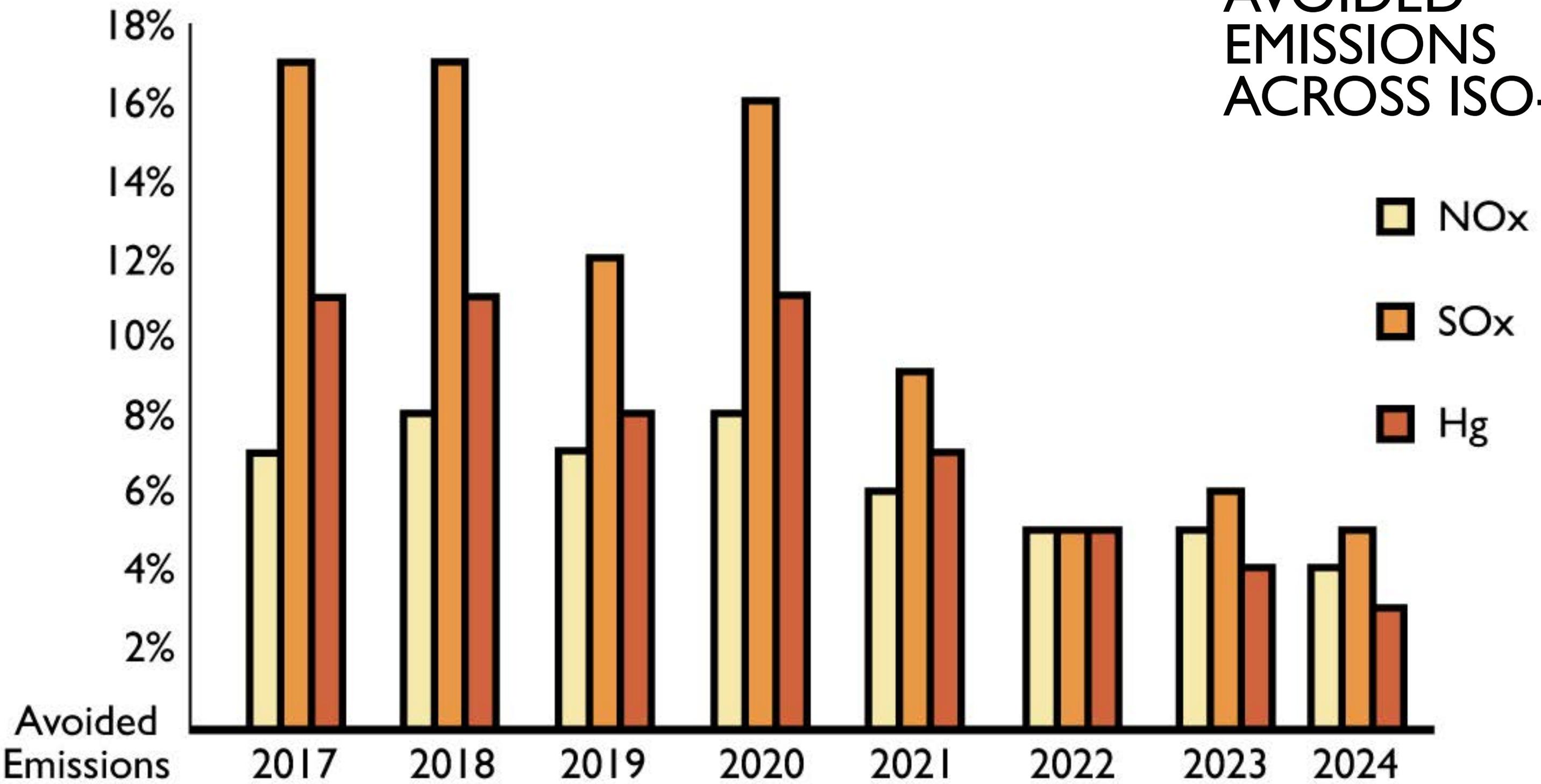
99%
REDUCTION

+/- 145,000 gallons of potable water per day



NEW PLANT

AVOIDED EMISSIONS ACROSS ISO-NE



Emissions
in tons

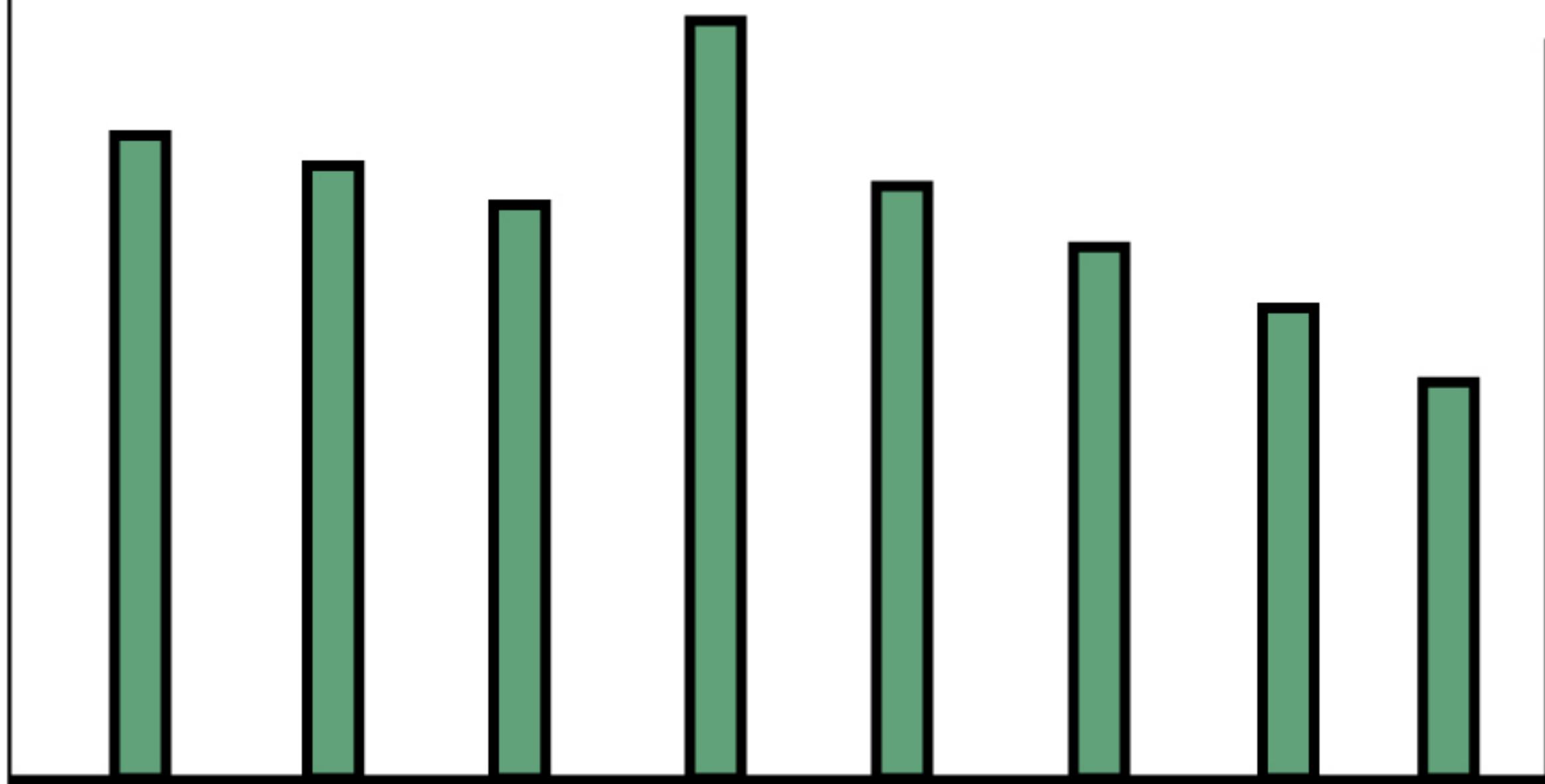
CO₂
REDUCTION

600,000
500,000
400,000
300,000
200,000
100,000

120,000
100,000
80,000
60,000
40,000
20,000

2017 2018 2019 2020 2021 2022 2023 2024

Cars off
the road





Annual average of
90,000 cars
removed from the road



LEADERSHIP IN ENERGY & ENVIRONMENTAL DESIGN



Sustainable
Sites



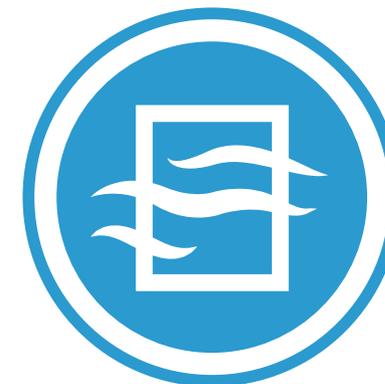
Water
Efficiency



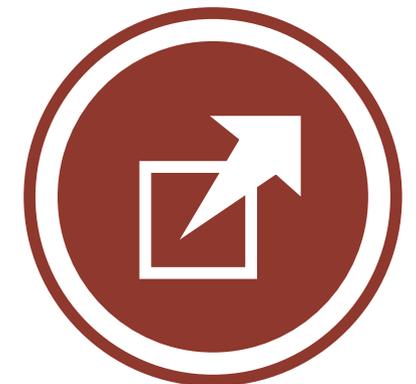
Energy and
Atmosphere



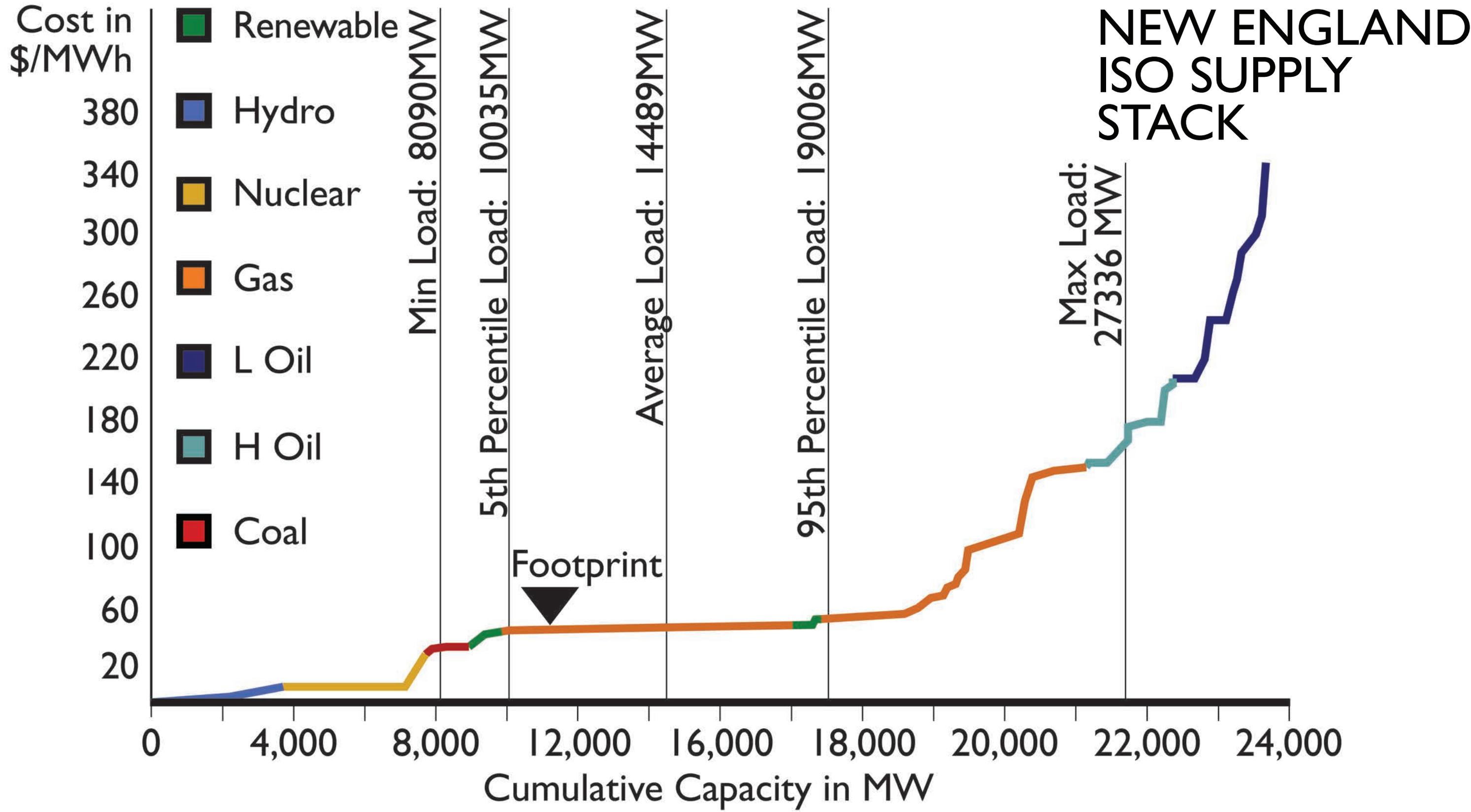
Materials
and Resources



Indoor
Environment Quality



Innovation
in Design



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