

# ON THE GRID

SITE ANALYSIS

KARI OPSAL MÆLAND

## SITE & CONTEXT

Equinor is looking at two sites/ areas for the Empire Wind substation, both located in Sunset Park, Brooklyn. Both sites are located by the waterfront.





 EQUINOR'S POSSIBLE SITES

## SITE & CONTEXT

The site chosen for this thesis is located on South Brooklyn Marine Termina. The site is chosen on the background of its proximity to different transportation options, and its relation to its neighbouring buildings.

The chosen plot lines up and becomes a continuity of the existing city block grid.

-  THESIS SITE
-  EQUINOR'S POSSIBLE SITES



## SITE & CONTEXT

### TRANSPORTATION

Several ferry lines pass by Sunset Park, which means the site is visible for people passing by, also on water.

The Brooklyn Greenway bike path runs past the back of the site.

Gowanus Expressway, an elevated highway, runs one block east from the site, leading north to either Manhattan or north Brooklyn, or south-west to Staten Island.

The BMT Fourth Avenue metro line runs close to the site, with lines D, N, R and W. 36th St Station, the closest station to the site, two express line stops from Manhattan,

- 
- FERRY LINES
  - BIKE PATH;  
BROOKLYN GREENWAY
  - HIGHWAY; INTERSTATE 278  
GOWANUS EXPRESSWAY
  - D, N, R & W METRO LINES

## SITE & CONTEXT

### SUN CONDITIONS

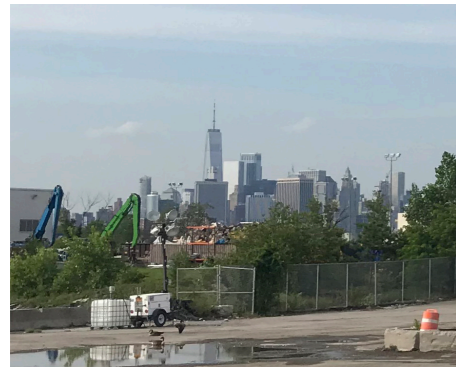
Placing the built volume on the right side of the pier leaves the south-west side of the pier open and light.



## SITE & CONTEXT

### VIEWS

The site has views over the Manhattan skyline and the statue of liberty.



View across Red Hook to Manhattan



View towards the Statue of Liberty





## SITE & CONTEXT

### INDUSTRIAL BUILDINGS

The Brooklyn waterfront has been an industrial area since the 1900th century. It is characterized by industrial buildings and warehouses, many of them who are today being converted into spaces for culture and design purposes.

The Gowanus Canal was once a vital cargo transportation hub, and although shipping has decreased, the canal is still one of the most toxic urban waterways in the U.S. Due to its proximity to Manhattan and Upper-Class Brooklyn it is subjected to waterfront redevelopment.

-  INDUSTRIAL BUILDINGS & WAREHOUSES
-  CONVERTED INDUSTRIAL BUILDINGS WITH DESIGN AND CULTURE PROGRAMS



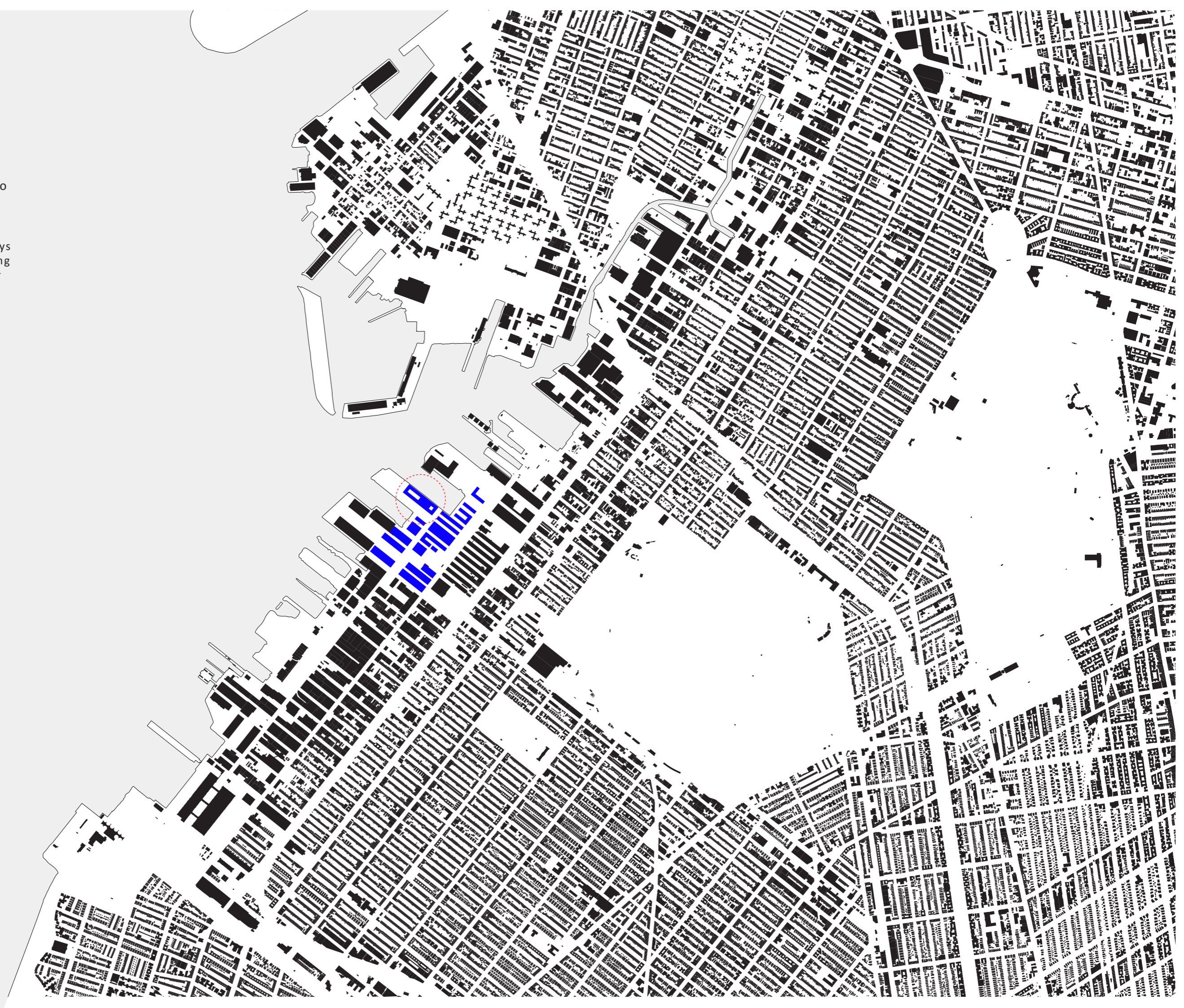
## SITE & CONTEXT

### POSSIBLE FUTURE DEVELOPMENT

The possibility of a future development on site has been taken into consideration in the project.

The assumed development stays within the rules of the existing city grid. The train tracks near the site are being kept clear.

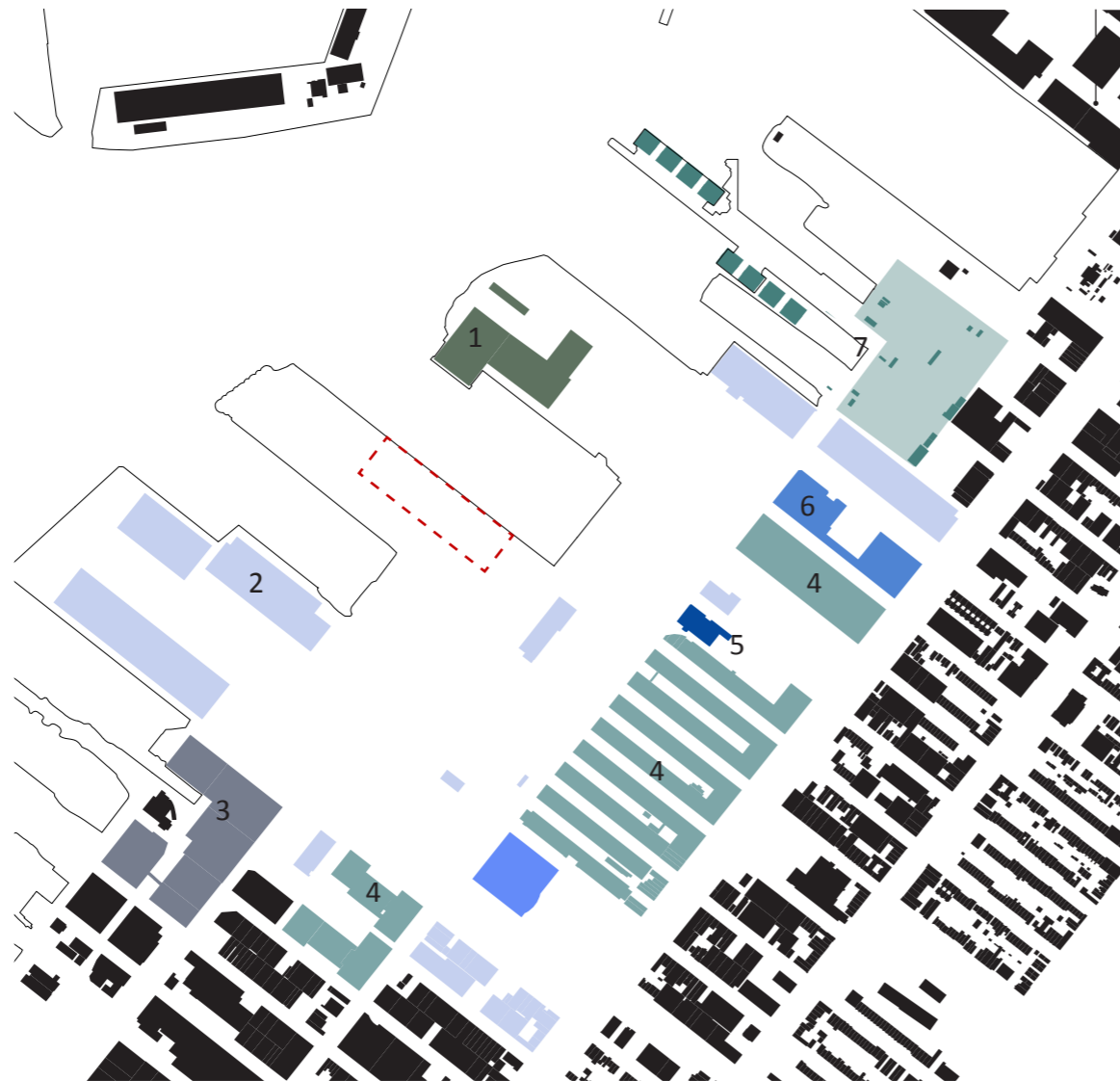
 POSSIBLE FUTURE DEVELOPMENT





# SITE & CONTEXT

## SURROUNDING BUILDINGS



1. Recycling Center



4. Industry City



5. Boiler room, converted into



2. Construction company warehouses



4. Industry City



6. Metropolitan Detention Center, prison



3. Dilapidated warehouse



4. Industry City



7. Gowanus Power plant

## SITE & CONTEXT

INDUSTRY CITY  
- a backdrop to the site



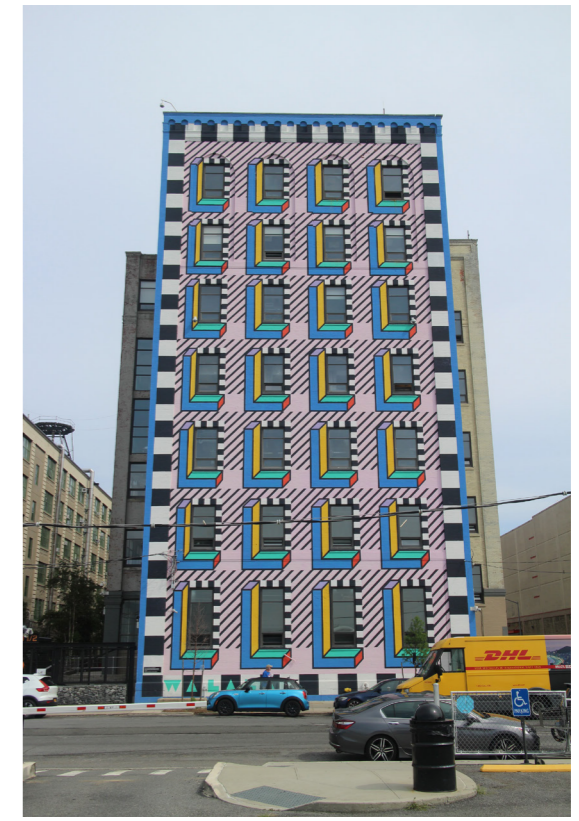
Industry City is a historic shipping, warehousing and manufacturing complex built between 1900 and 1910. The buildings has been (and still are) being renovated and converted into offices and commercial spaces, especially directed towards fashion, design and media companies.



"If your backyard is more fire escape than great escape, a better backyard is waiting for you". Commercial posters on the NYC subway promoting Industry City during summer 2019.



One of the backyards, with food trucks and activity zones.



The southernmost facade of Industry City is painted in bright colors, definitely making it more "Instagrammable".

SITE & CONTEXT

PEDESTRIAN FLOW



— Pedestrian flow

● 36th Street Metro Station



View towards the site, walking from 36th st Station



Pedestrian crossing under Gowanus Expressway



View towards the site from in between two Industry City buildings

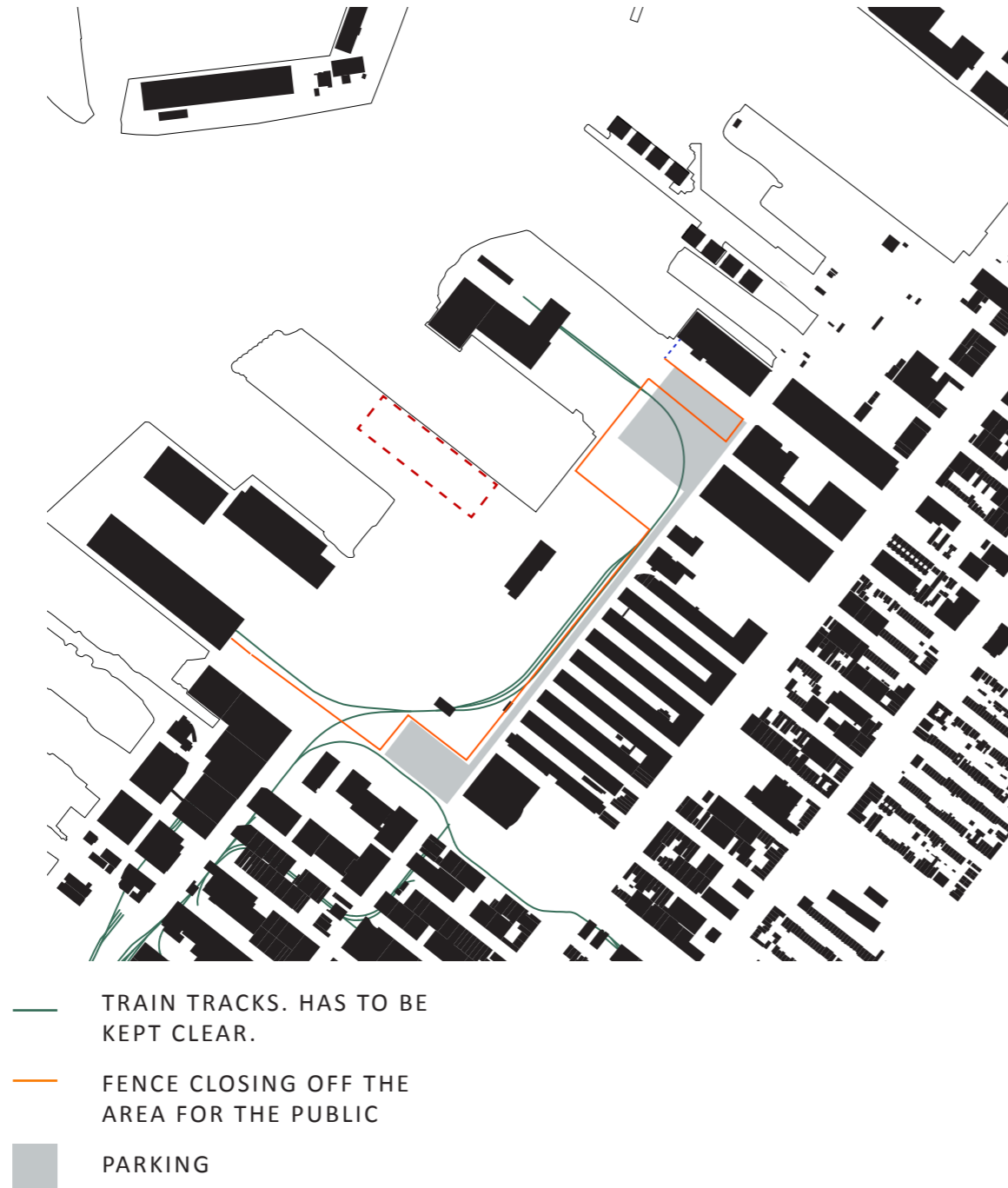


Connection crossing the Industry City buildings

## SITE & CONTEXT

### SITE BOUNDARIES

The site is today completely closed off to the public. A fence closes off the area. A parking lot runs along the fence.



The train tracks enclose the plot on the north-east side, and have to remain clear of any building mass.



A parking lot and a fence separates and closes off the plot for the public.

## SITE & CONTEXT

### FLOODPLAIN & SEA LEVEL RISE

Floodplains are low-lying lands next to rivers, streams, or in coastal areas.

The base flood elevation on site is 15 feet. Regulations say that construction must be above the base flood elevation, plus 2 feet.



- ZONE A: Area with a 1% annual chance of flooding and a 26% chance of flooding over the span of 30 years. All construction
- ZONE V: Same as zone A, but also additional hazard associated with storm waves.
- ZONE X (SHADED): Area of moderate flood hazard



Future high tide 2020s



Future high tide 2050s



Future high tide 2080s



Future high tide 2100