

Iuav University of Venice

European Master in Planning and Policies for the Cities, Environment and Landscape ·PPCEL·

# INTENSIVE INTERNATIONAL WORKSHOP

15 > 19 May 2017. PHILADELPHIA

# Coastal adaptation planning projects for Eastwick 2017

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## FINAL PRESENTATION

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V



# EASTWICK

## meadows



Prior to the 1950s, Eastwick residents called it many names, including “Elmwood,” “Clearview,” and “the **Meadows**.<sup>19</sup> In the words of former resident Mary Martin, Eastwick was a “knitted in community” built among natural marshlands.<sup>20</sup>

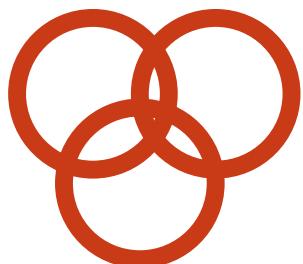
<sup>19</sup> McKee, *supra note 1*, at 547, 549, 555, 575 n.40.

<sup>20</sup> A FIELD OF WEEDS, Part I, 3:03 (EKO Productions 1989), available at <http://eastwickfriends.wordpress.com/mediapress/a-field-of-weeds/>, archived at <http://perma.cc/S3ZP-ATW 5>.



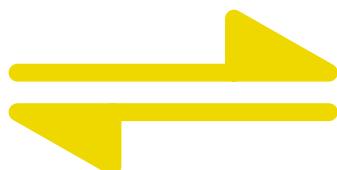
## **SAFETY**

Adapting to Climate Change  
Water management  
Resilience actions



## **USABILITY**

Multy use  
Re-appropriation  
User friendly  
Livability



## **ACCESSIBILITY**

Connections  
Access  
Enhancement

# SPATIAL ANALYSIS

# Building analysis

## Legend

Eastwick

## Buildings

Facilities

Residential high density

Residential medium density

Residential low density

Commercial business and professional

Commercial consumer

Industrial

Building area



# Infrastructure analysis

## Legend

- Eastwick
- Infrastructures
  - Expressway
  - Major Arterial
  - Minor Arterial
  - Train
- Building area



# Environmental analysis

## Legend

Eastwick

Water system

River

Wetland

Green system

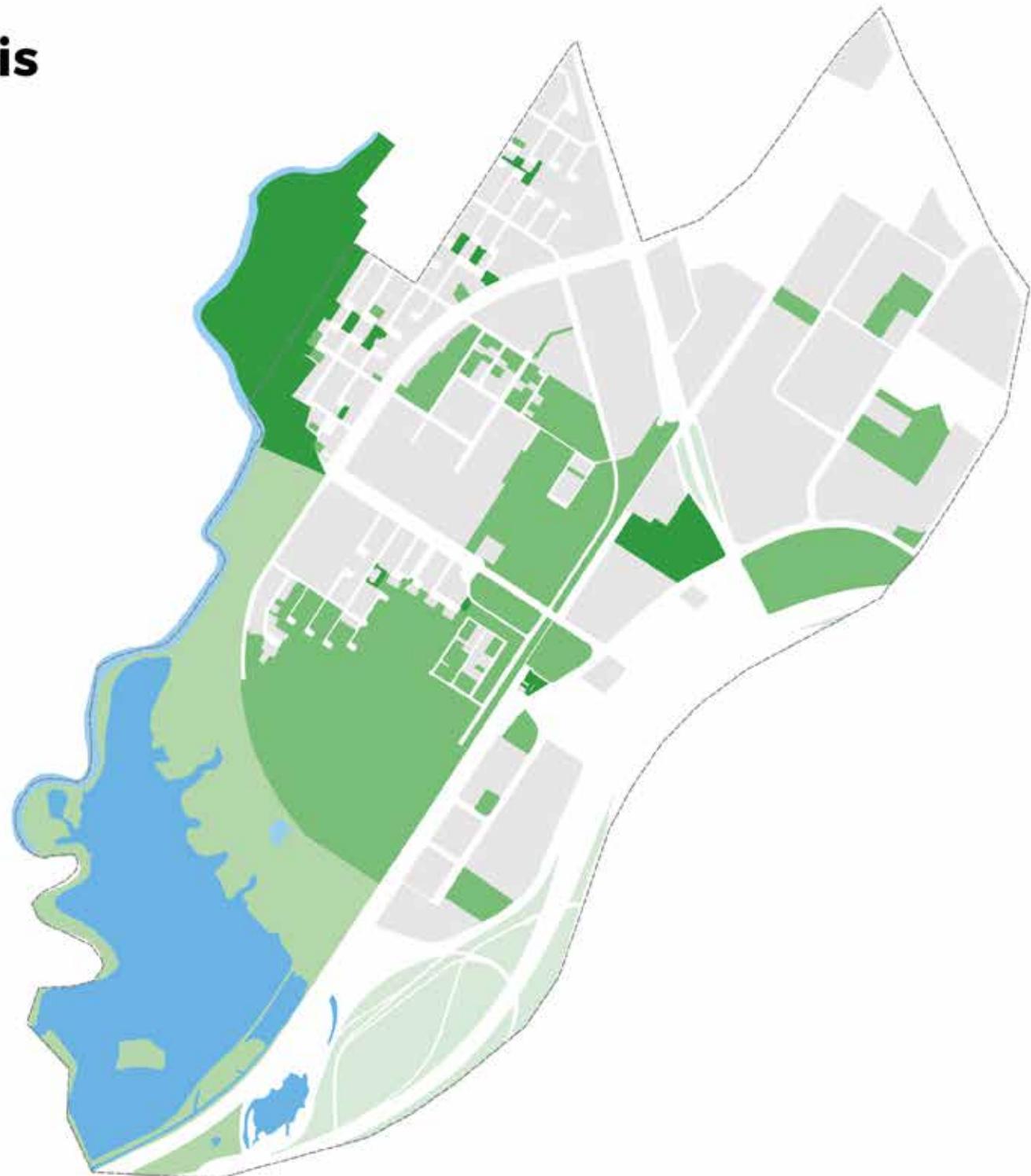
Natural reserve

Park/open space

Vacant land

Infrastructural green

Building area



# Eastwick: Spatial analysis

## Legend

Eastwick

Water system

River

Wetland

Green system

Natural reserve

Park/open space

Vacant land

Infrastructural green

Buildings

Facilities

Residential high density

Residential medium density

Residential low density

Commercial business and professional

Commercial consumer

Industrial

Infrastructures

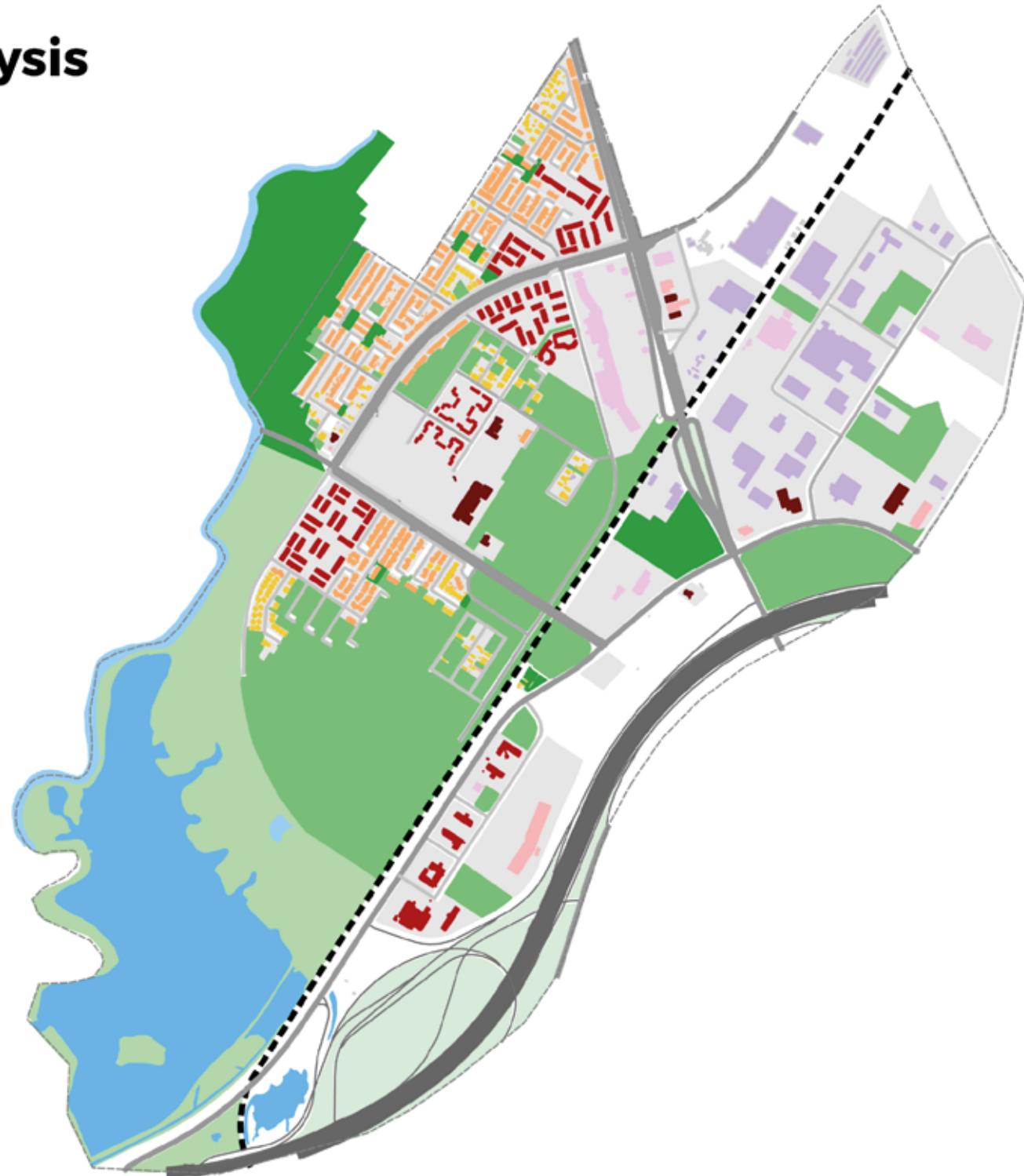
Expressway

Major Arterial

Minor Arterial

Train

Building area

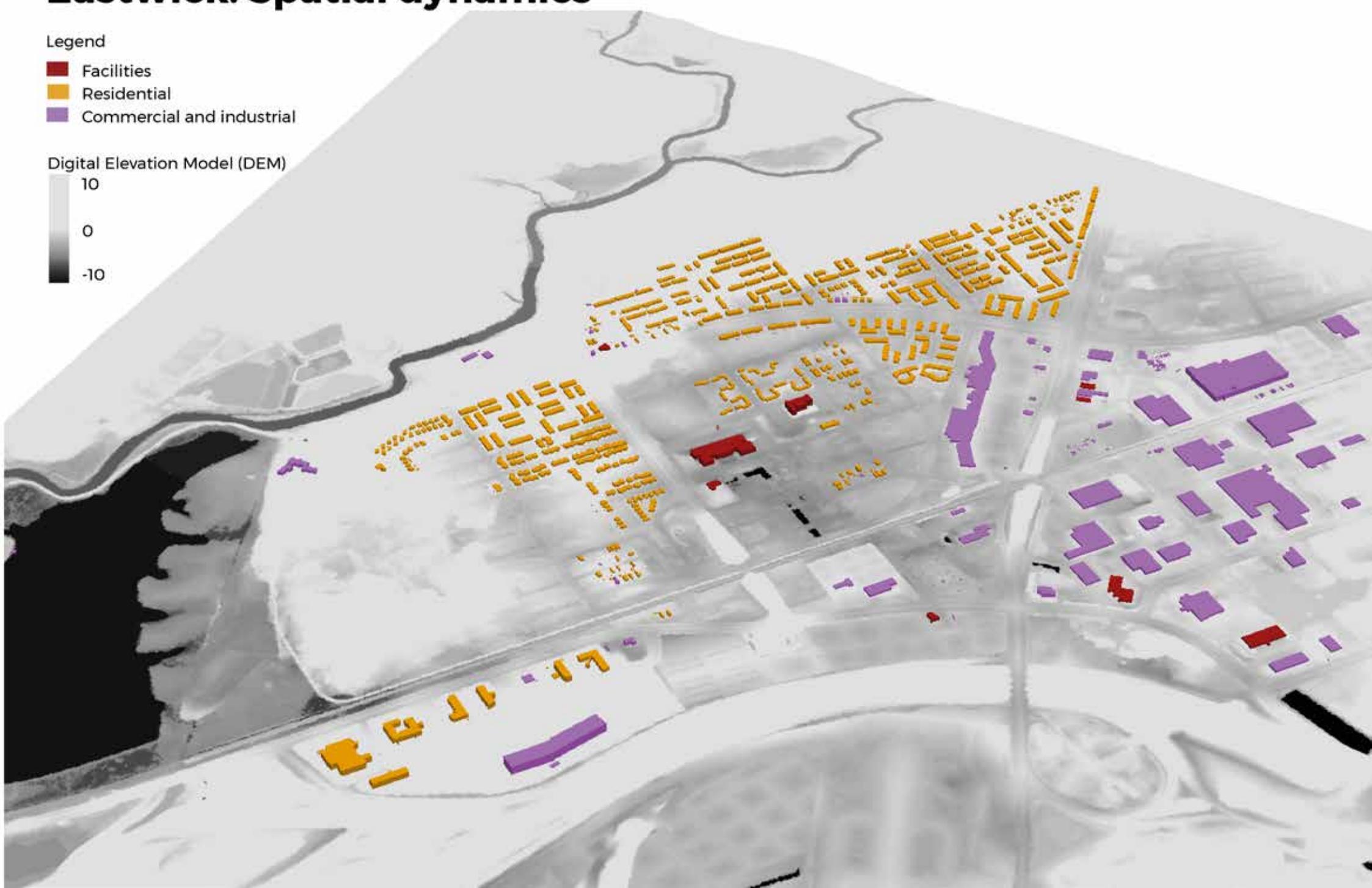
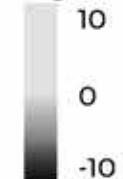


# Eastwick: Spatial dynamics

## Legend

- Facilities
- Residential
- Commercial and industrial

## Digital Elevation Model (DEM)

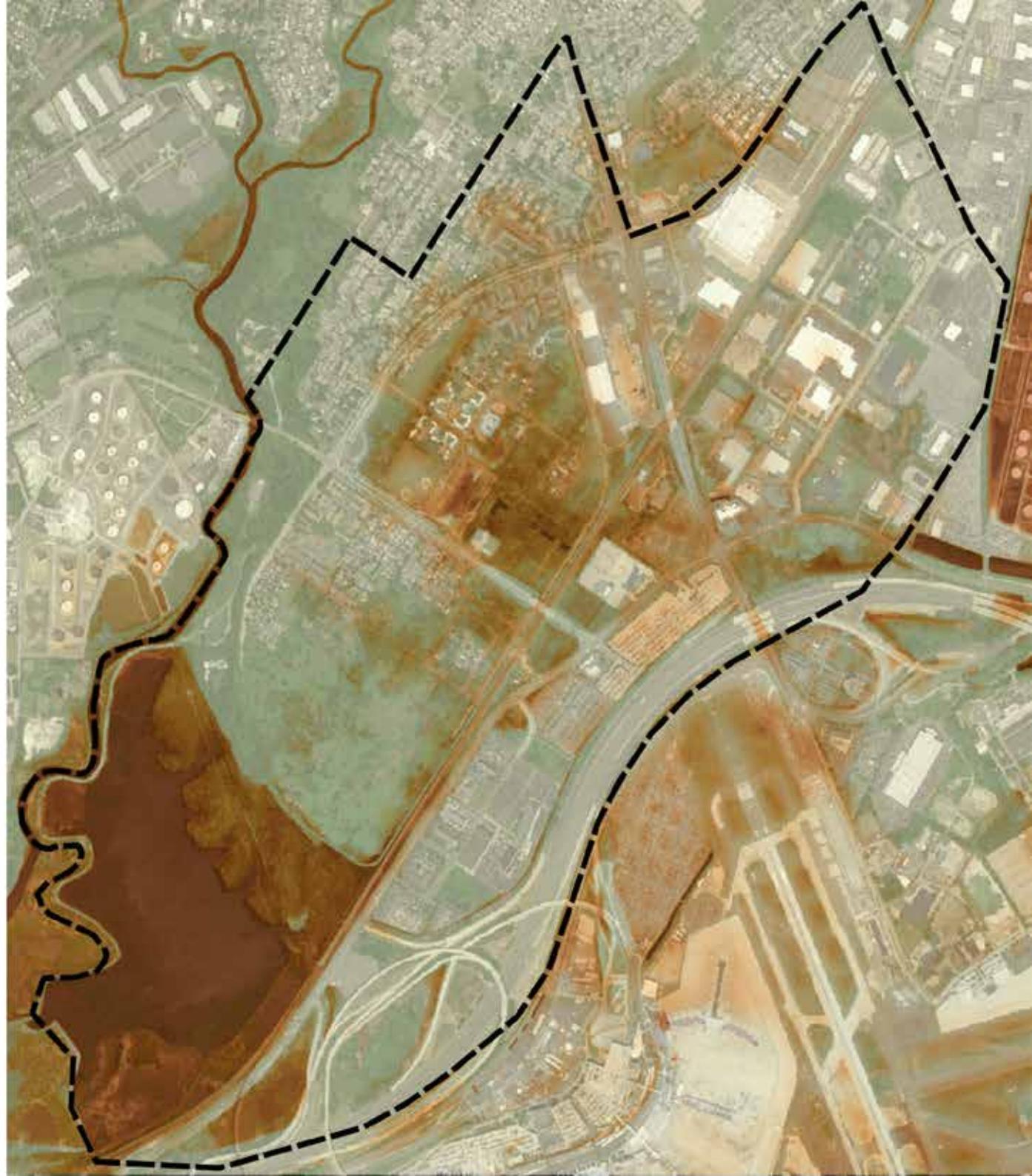
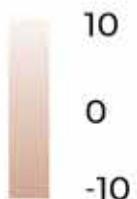


# Eastwick:

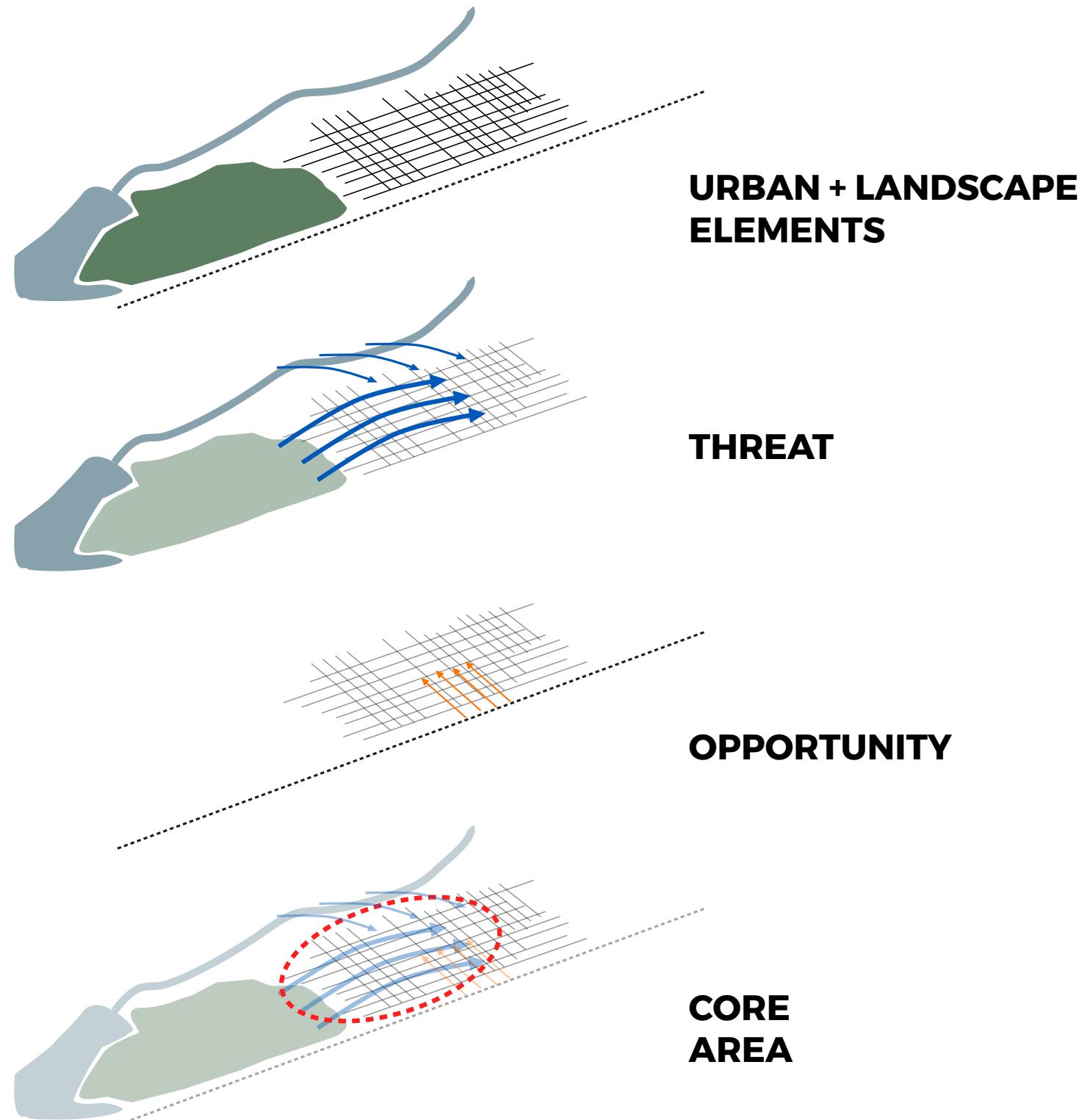
## Vulnerability areas

Legend

Digital Elevation Model (DEM)



# EASTWICK TERRITORIAL DYNAMICS



# **Potential Levee site at 78th street near Clearview landfill**

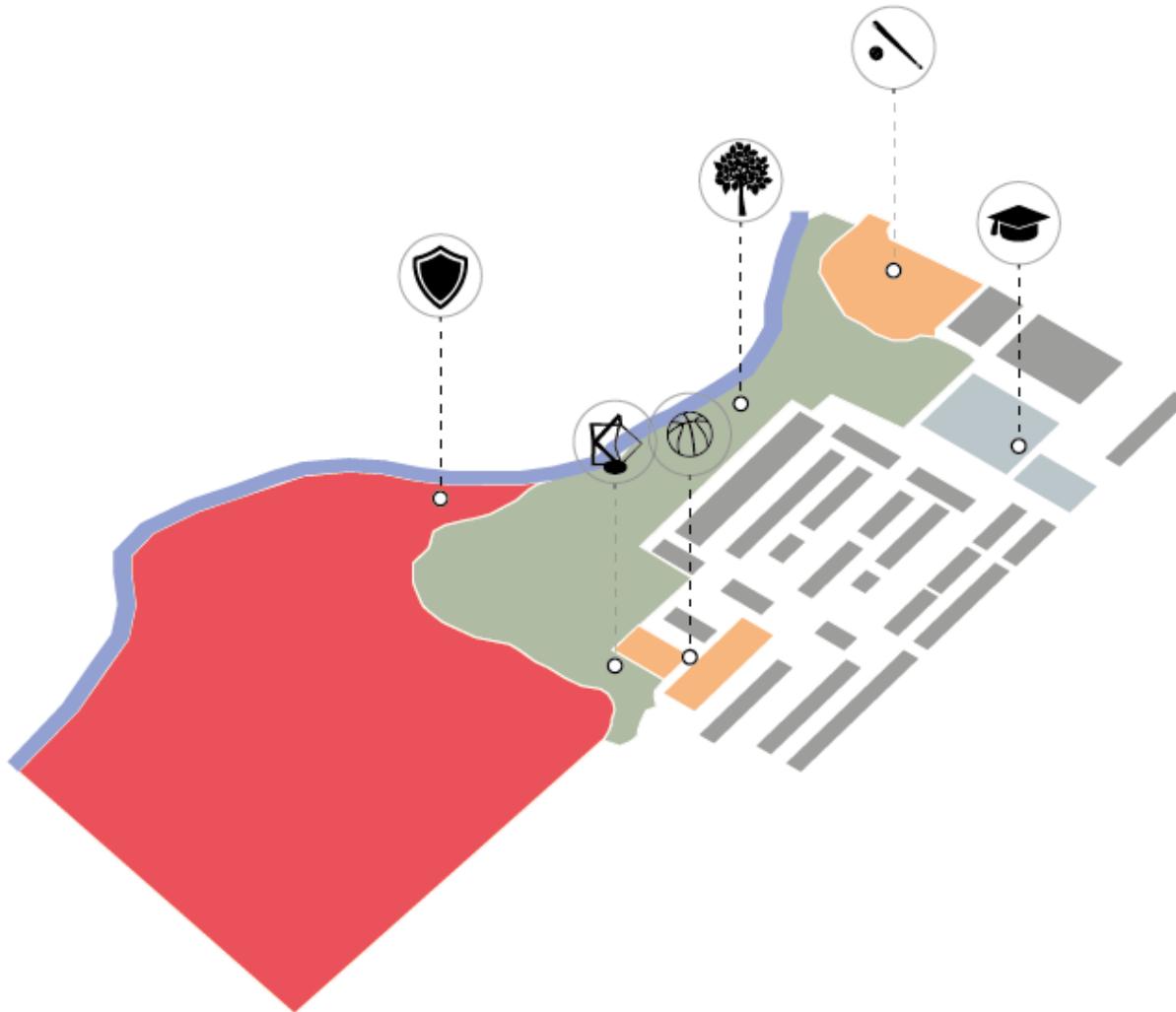
## **Group 1**

**Alessia Rolando  
Pietro Nuti**



# FOCUS AREA

## Locne Vibe



BASEBALL FIELD



BASKETBALL FIELD



GREEN AREA



ART



EDUCATION



SAFETY





PLAYGROUNDS

BY 100% CO2

**POLLUTION**  
CONTAMINATED



## **WARNING NO TRESPASSING**

U.S. Environmental Protection Agency  
Lower Darby Creek Area Superfund Site  
Clearview Landfill

To obtain more information on this site, call 215-814-9016

To report suspicious activity, call 1-800-424-8802

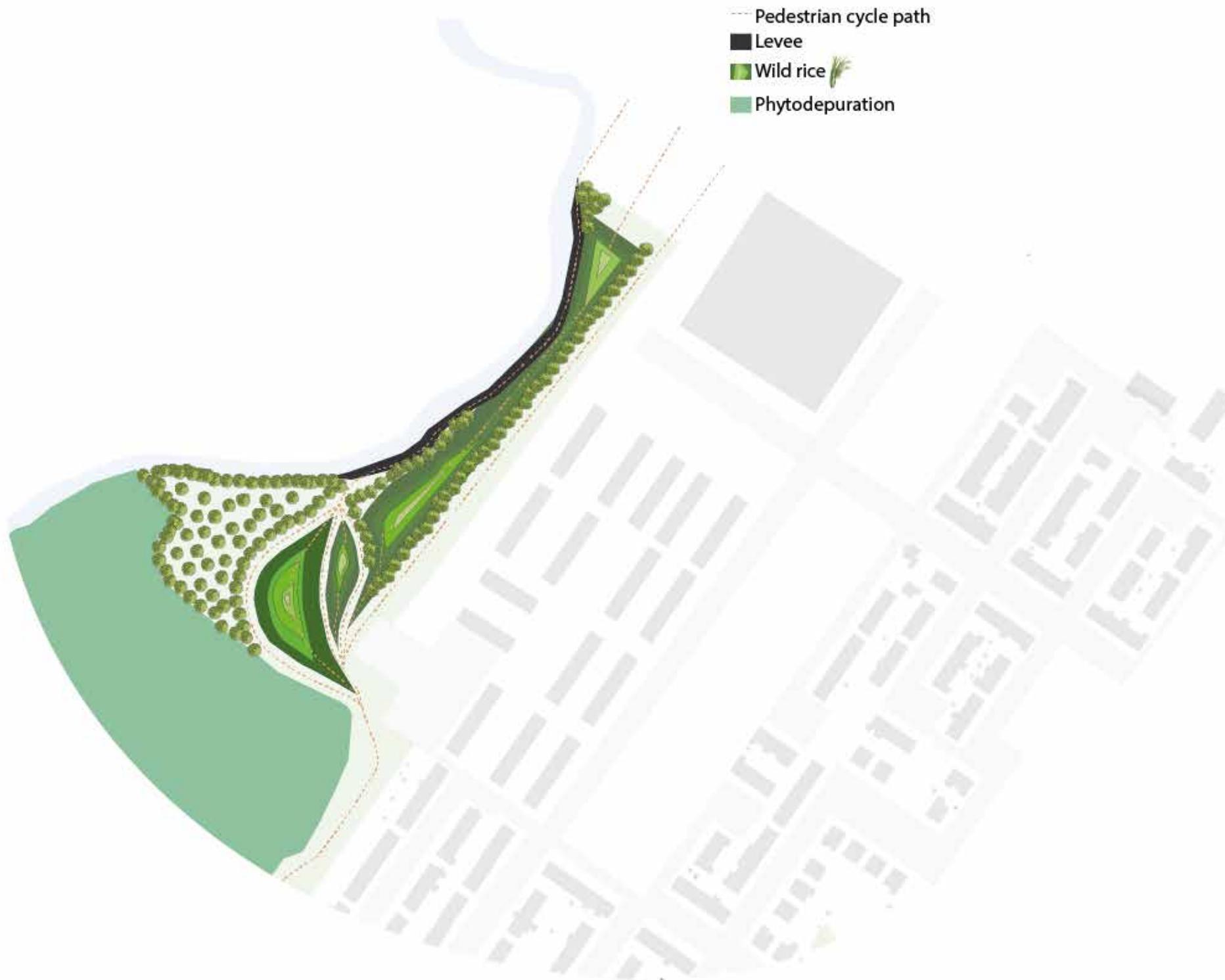


ART

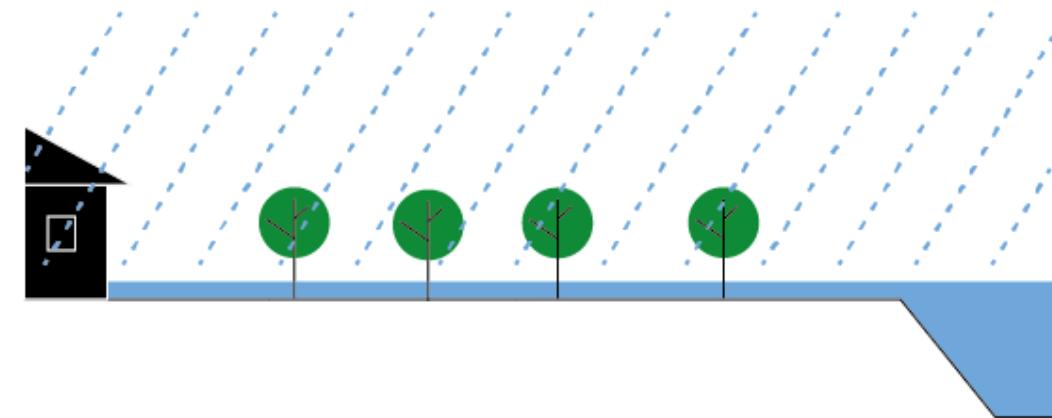
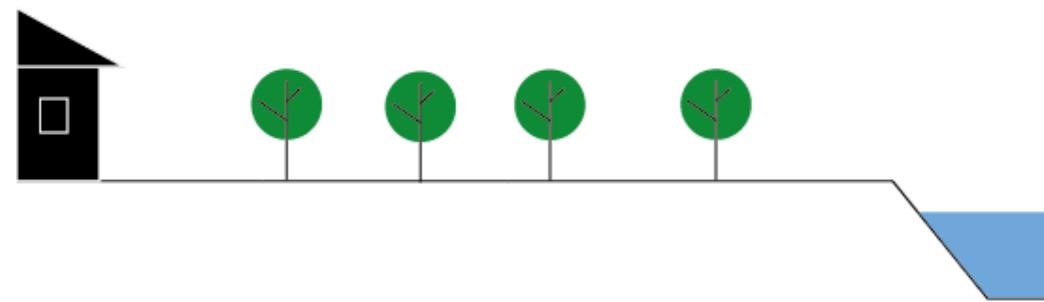


**OPEN SPACES**  
OBERT SPACES

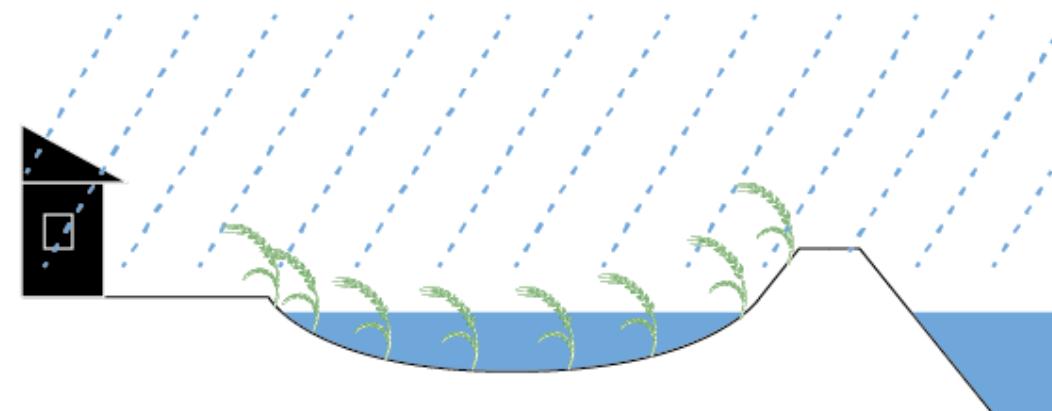
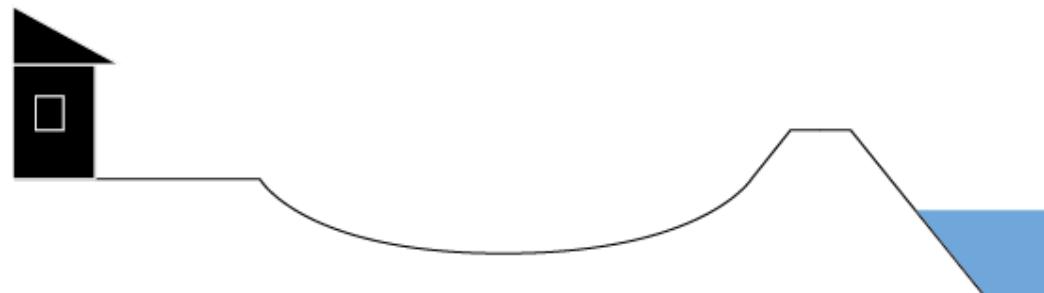
- Pedestrian cycle path
- Levee
- Wild rice 
- Phytodepuration



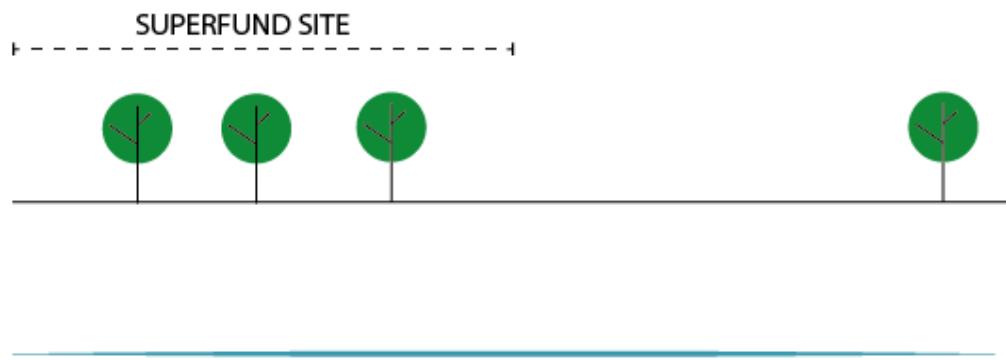
# CURRENT SCENARIO СУЩЕСТВУЮЩАЯ СИТУАЦИЯ



# IPOTHEtical SCENARIO ПОТЕНЦИАЛЬНЫЙ СЦЕНАРИЙ

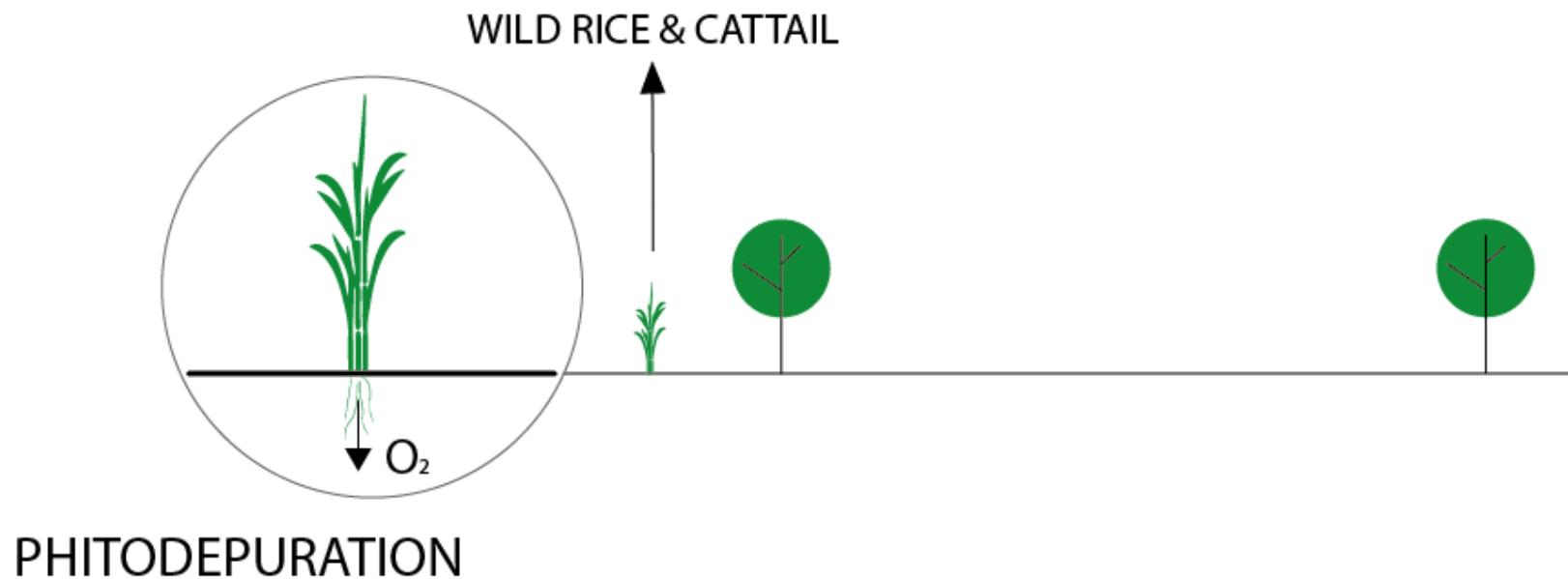


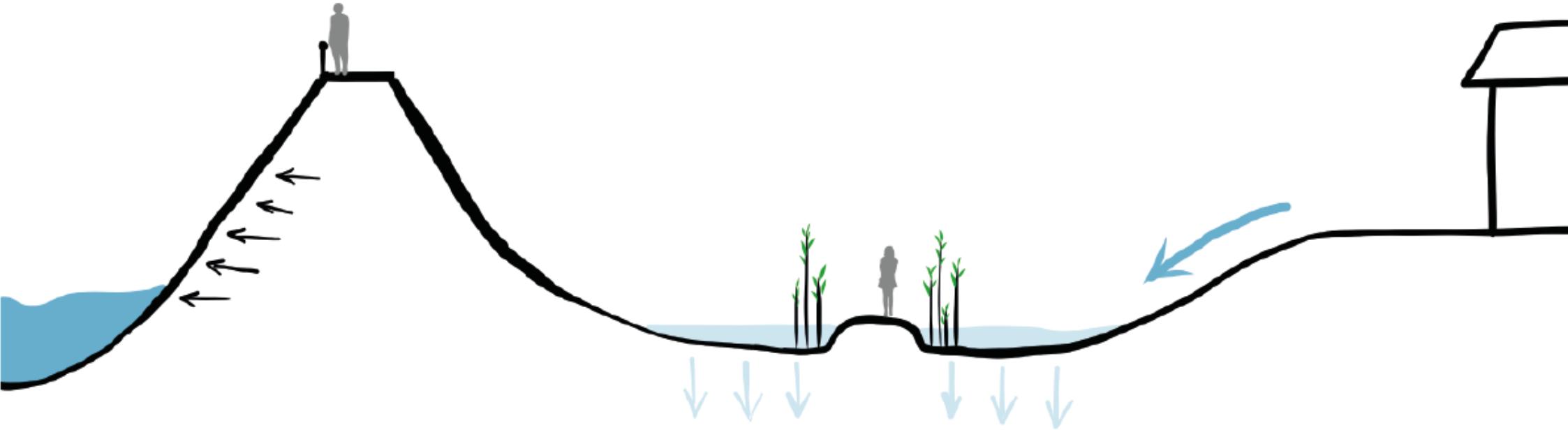
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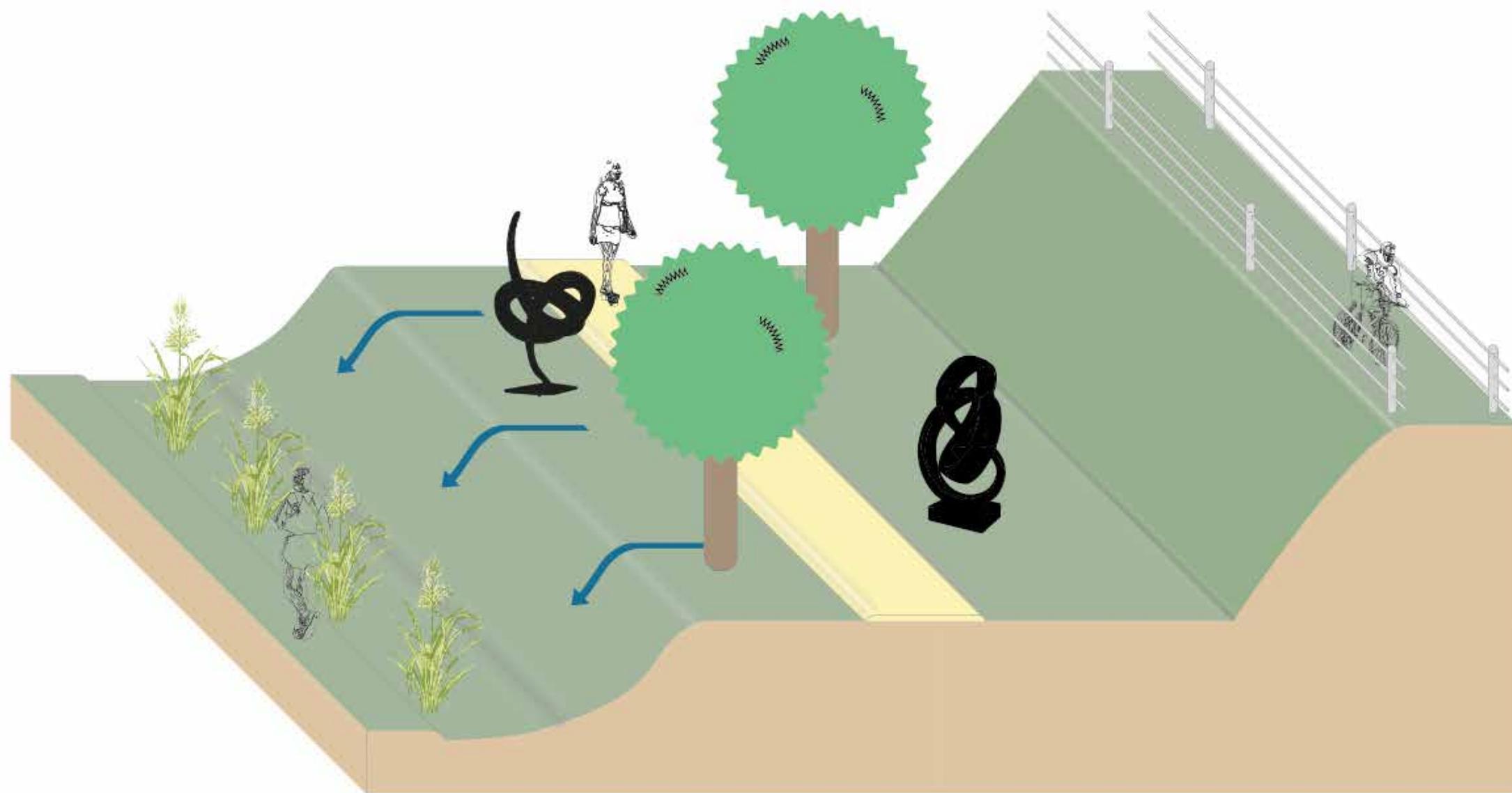


PAH  
(Polycyclic Aromatic  
Hydrocarbons)

# POSSIBLE SOLUTION Возможное решение









NEW LEVEE  
НЭМ ГЕЛЭЭ

GOOD WEATHER  
GOOD COOP  
GOOD LIFE







H  
H

**Potential closed canopy forest restoration site located to the southwest of imaginary 87th street**

**Group 2**

**Carlo Federico dall'Om  
Carlotta Gennari  
Gianmarco Di Giustino**



## ACCESSIBILITY

Two main streets on one side (84 th & Mario Lanza Blvd) and the Heinz Reserve on the other side surround the residential area so one side is too exposed to the traffic and the other is closed by an unused green area.



1945 \_ What was



1957 \_ What was supposed to happen

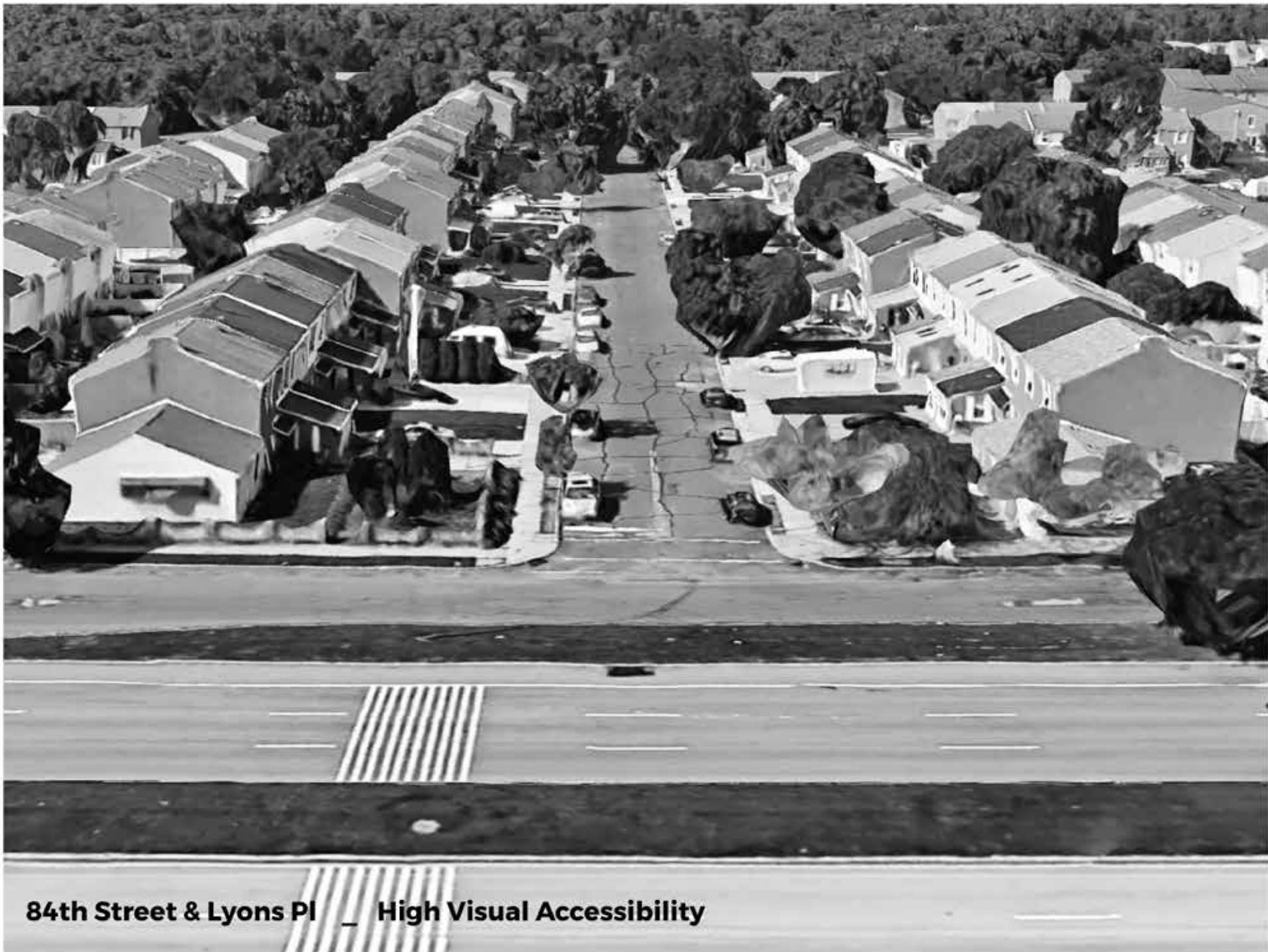


2017 \_ What actually happened



# ACCESSIBILITY

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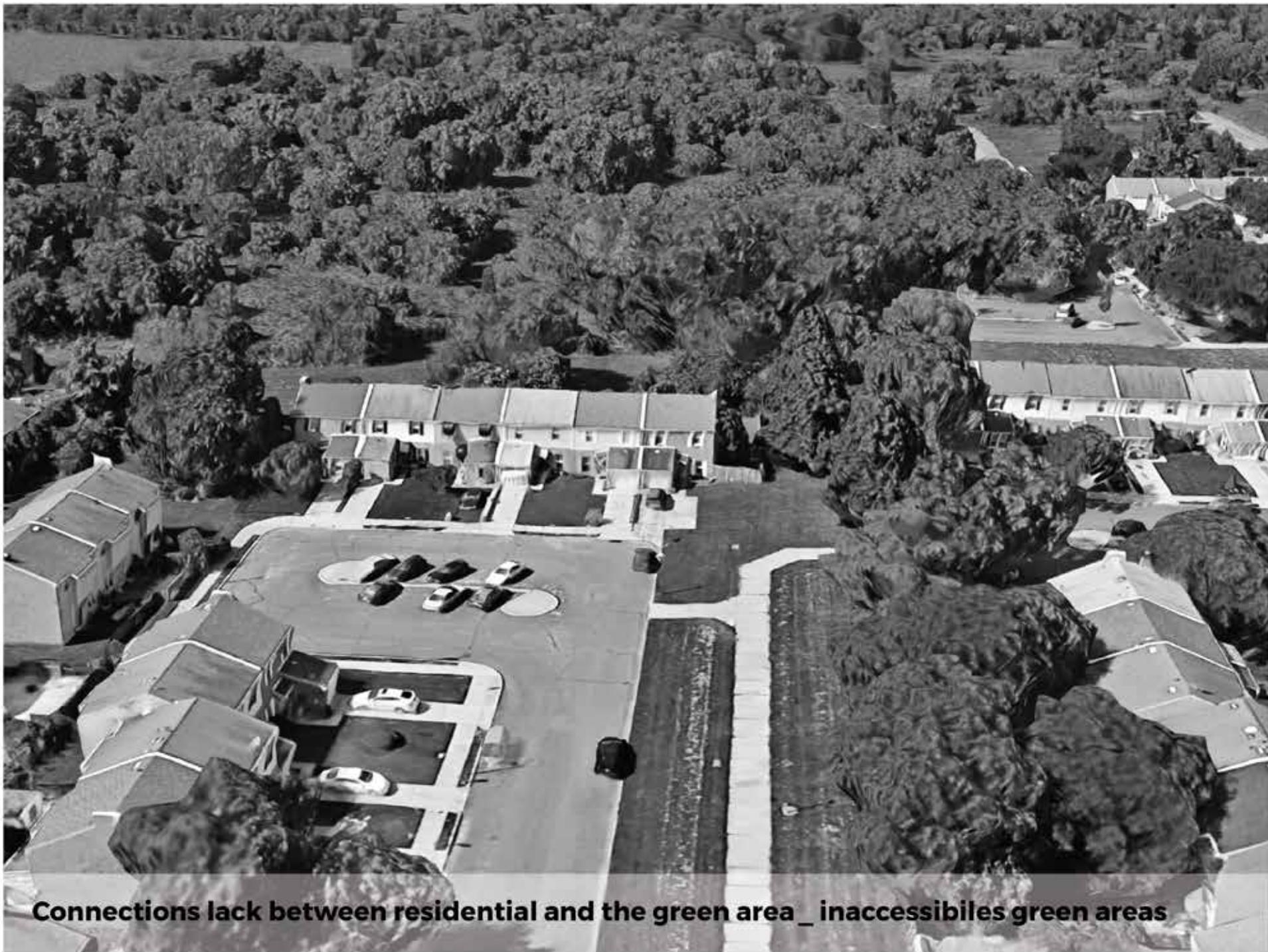
**84th Street & Lyons Pl** — **High Visual Accessibility**

# ACCESSIBILITY

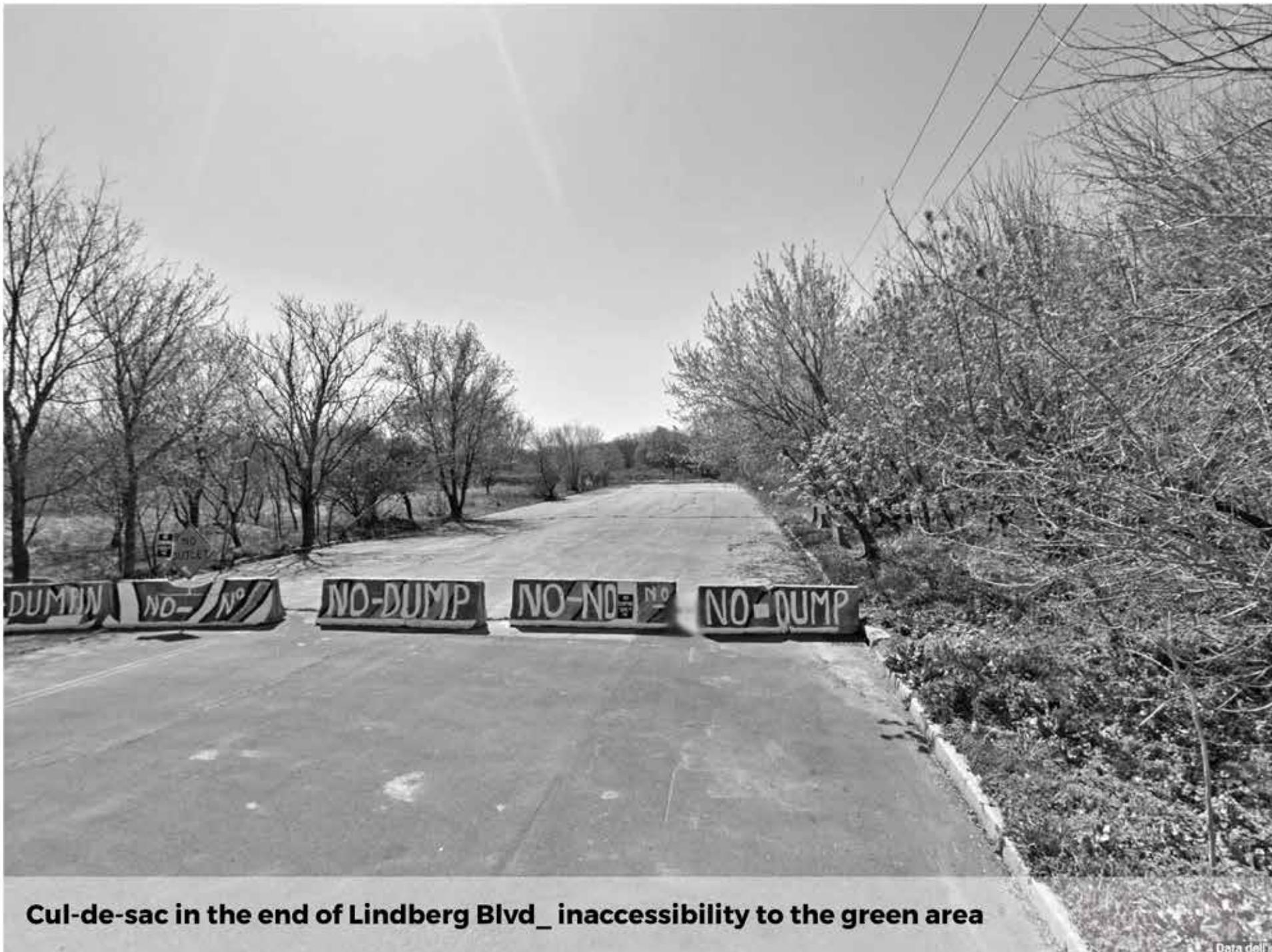
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**Unused roundabout in the end of Cratin PI\_ inaccessibility to the green area**



**Connections lack between residential and the green area \_ inaccessibles green areas**

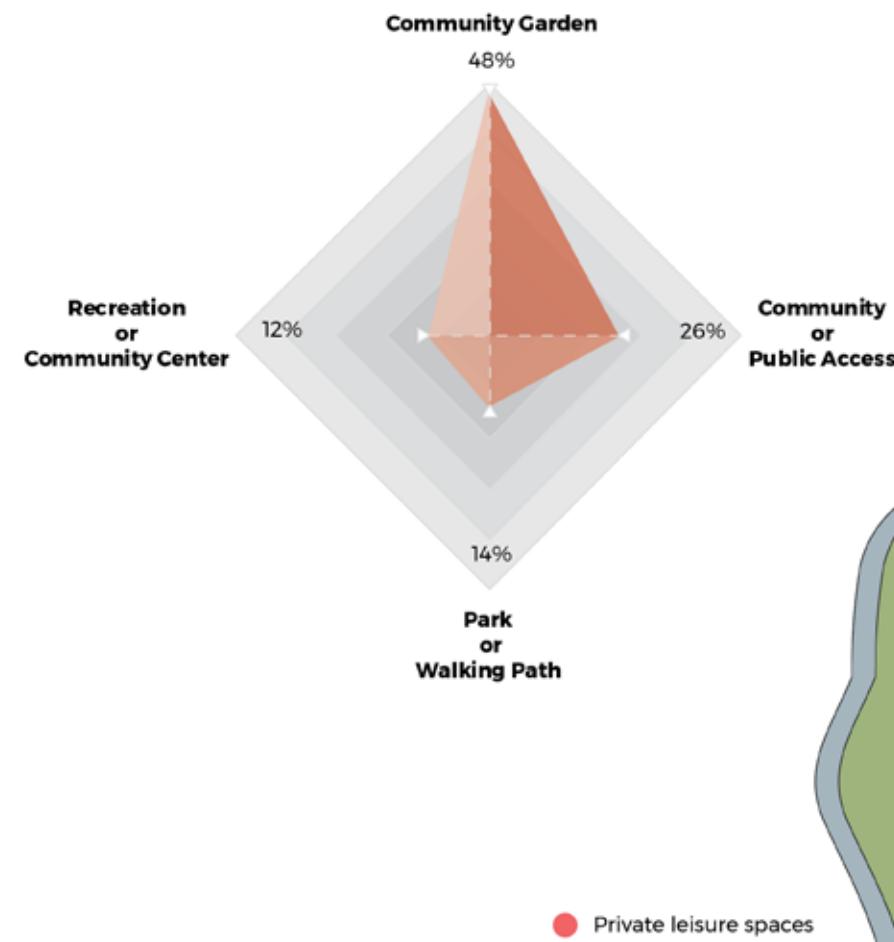


**Cul-de-sac in the end of Lindberg Blvd \_ inaccessibility to the green area**

## LEISURE

The population recognizes the need of livable green areas for the community since there is a big unused green area between their residences and the reserve Heinz.

Since most of the population is retired there is a lack of infrastructure for the open-air activities they could enjoy and community life.





Unused green area facing the Heinz reserve paths



**Underused sport infrastructure on the other side of the 84th**



**High presence of private leisure gardening**

## SAFETY

In the case of extreme conditions part of the residential area can be affected by flooding especially on the 84th street and on the central strip which is the lowest one.

Pumps are already there and in addition the population need to clean the area from backwater monthly.

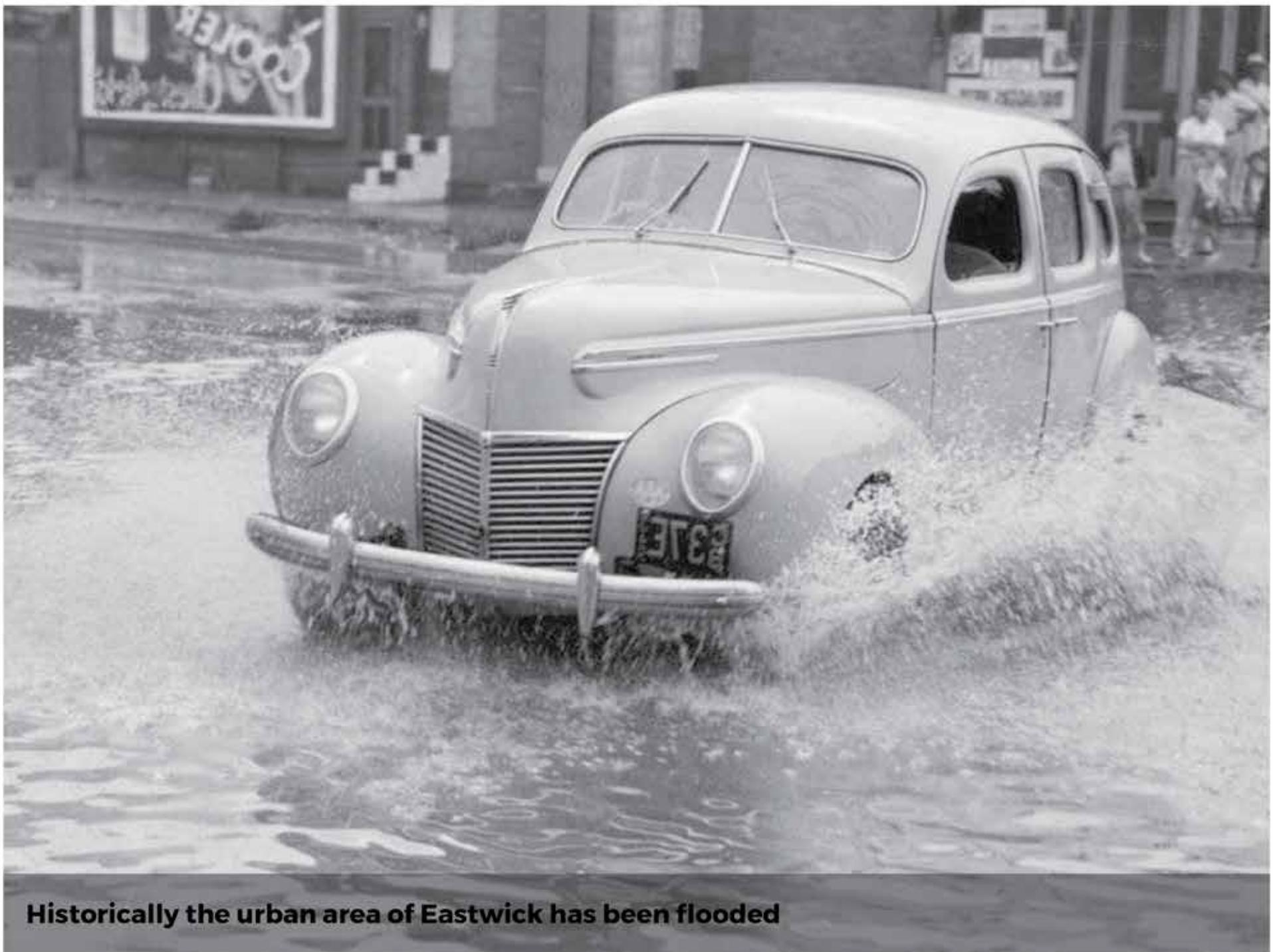


High flood danger



## SAFETY - FLOODING

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**Historically the urban area of Eastwick has been flooded**

## SAFETY - FLOODING

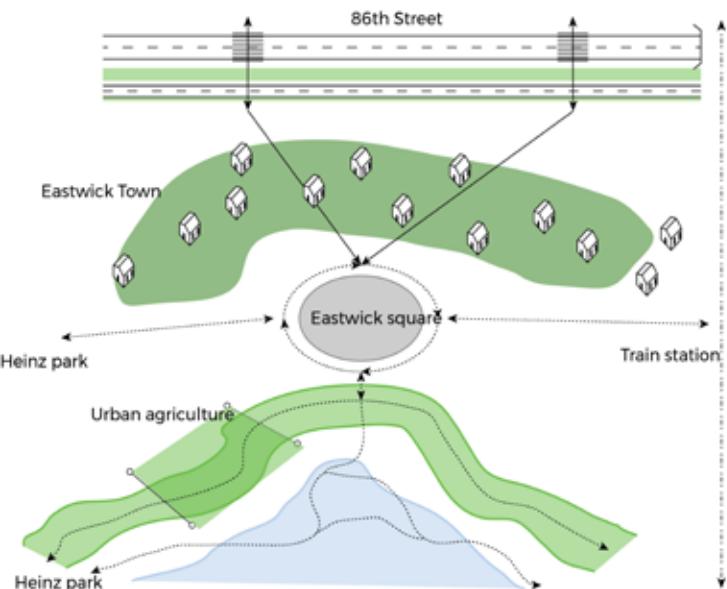
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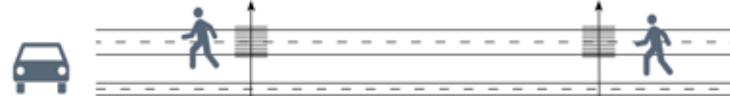
Estwick during Irene in \_ July 23 2011



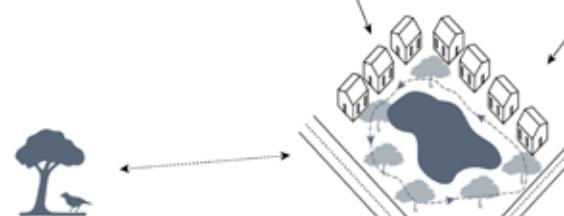
## Previsional Scenario



Pedestrian crossing



Urban-Core permeability

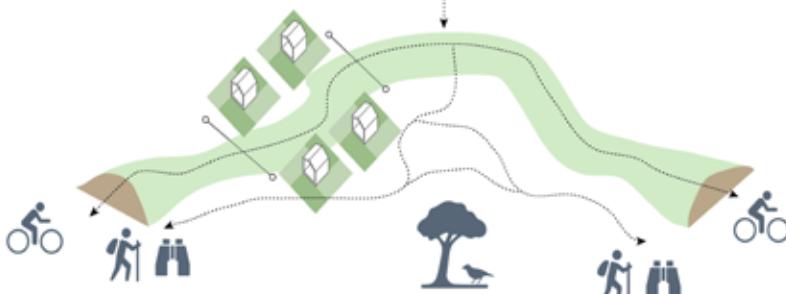


Infrastructural connection



Phase 2  
Accessibility  
and  
Leisure

Urban Agriculture



Public levee

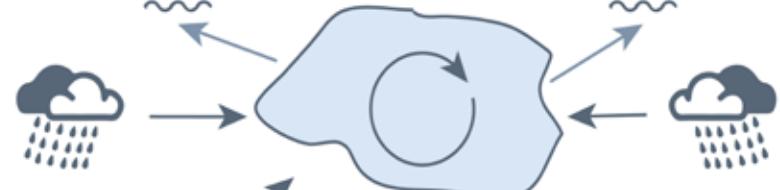
Connection to Heinz Park



Drainage green belt

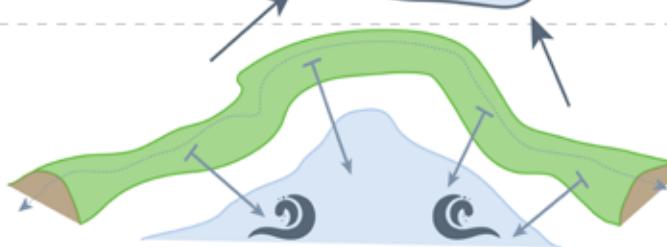


Storm storage lake



Phase 1  
Risk

Defence levee







Eastwick  
square  
lake

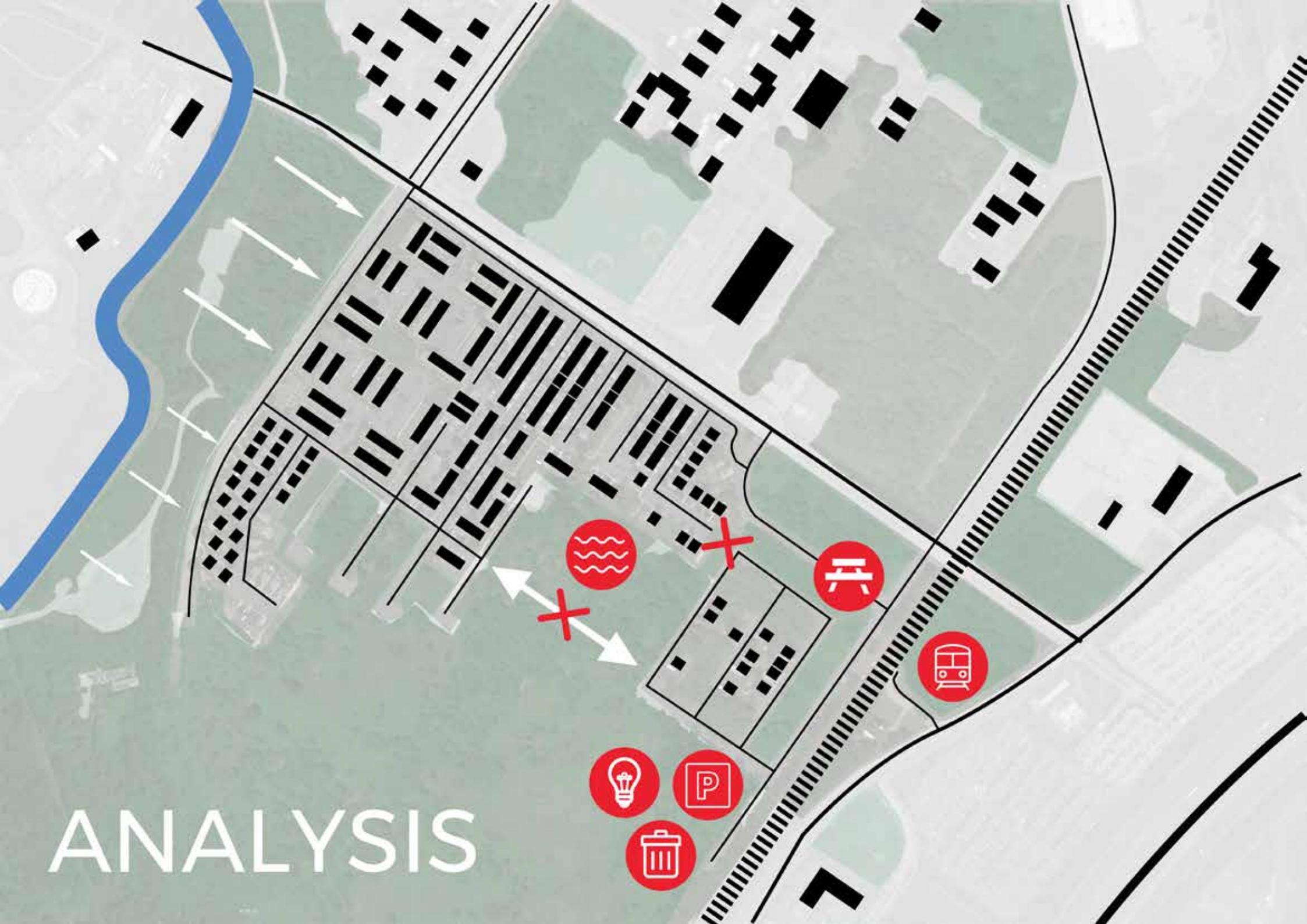


# **Potential transit oriented develop- ment near Eastwich Train Station**

## **Group 3**

**Francesco Fagotto  
Johnny Nicolis  
Leonardo Piu**





# ANALYSIS



Mario Lanza Bl

CAR PARK





A photograph of a paved road that ends at a dead end. A yellow diamond-shaped road sign on a pole stands on the right side of the road, with the words "NO OUTLET" written on it. The road is surrounded by dense green trees and bushes. The sky is clear and blue. The word "CONNECTION" is overlaid in large white letters across the bottom of the image, with a red "X" mark on the right side.

NO  
OUTLET

CONNECTION 



# ACCESSIBILITY





# LIGHTING





RESILIENCE





GARBAGE





PUBLIC SPACE



U  
+

**USABILITY**

S  
+

**SAFETY**

A  
+

**ACCESSIBILITY**



Multy use infrastructures  
Re-appropriation of green areas  
User Friendly facilities  
Meeting places for residents



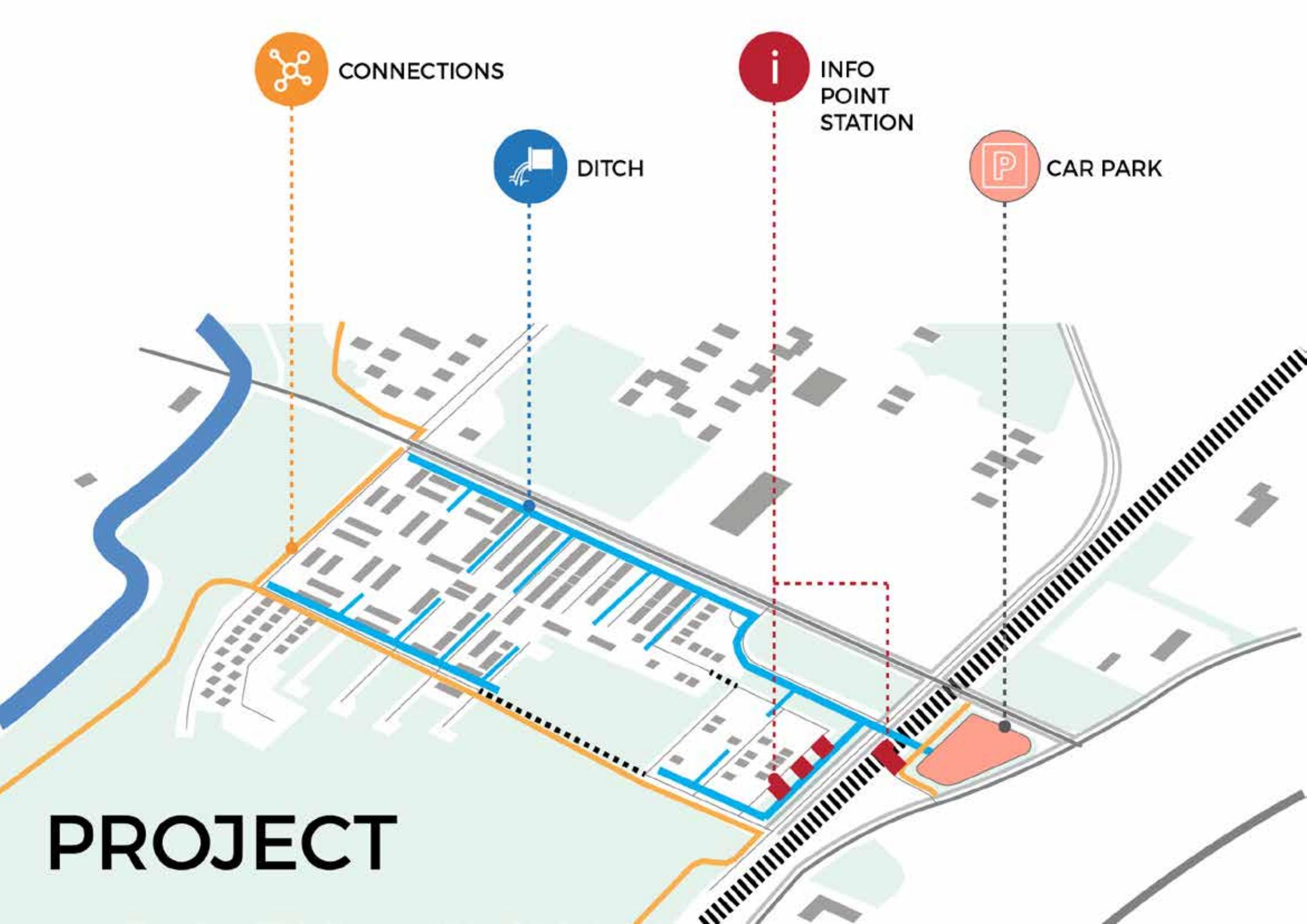
Public lighting  
Cleaning  
Water management  
Resiliency



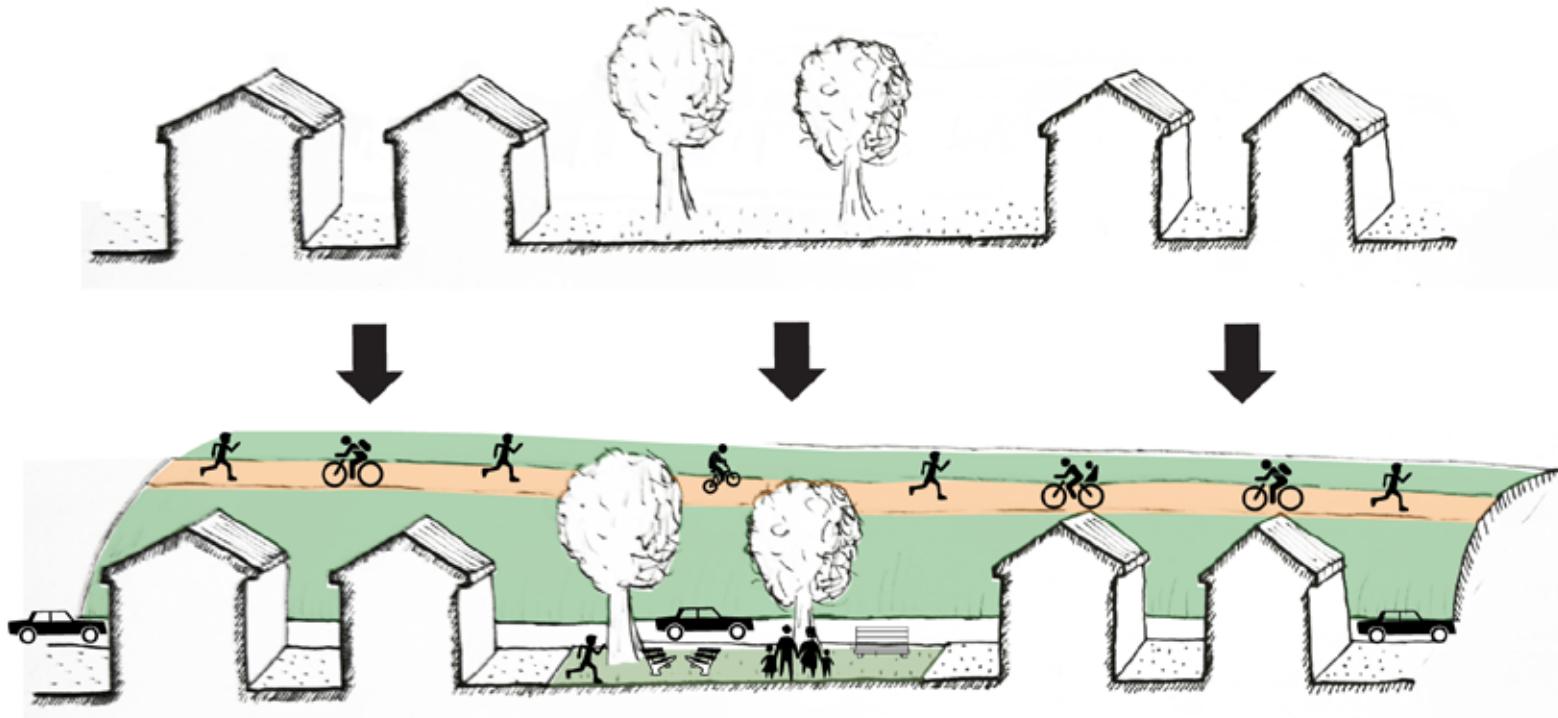
Connections with the  
neighborhood  
Access to green areas  
Enhancement of public transport  
Car parking

=

**MORE LIVEABILITY**



BEFORE



AFTER



#### Connect streets

New infrastructures are designed with the purpose of connecting functions in the urban center.



#### Connect bike paths

The connection of the cycle\pedonal path aims to bind the neighborhood and raise awareness about environmental aspect



#### Connect green

The connections between green infrastructures aim to create a bond between environment and urban center within the ecosystem

CONNECTIONS



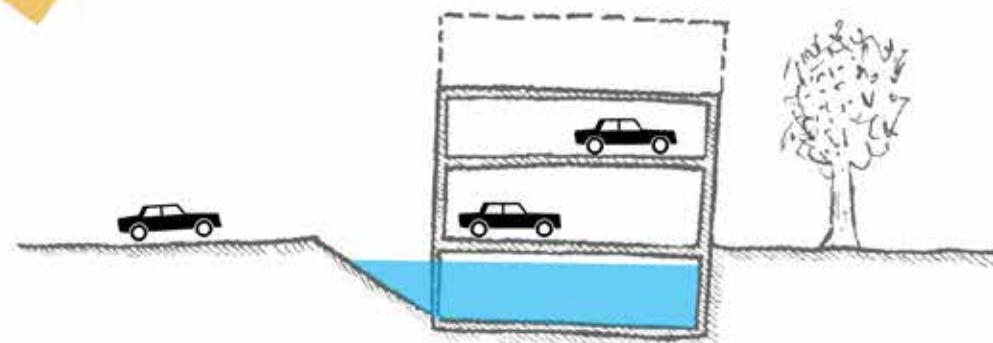


STATION i

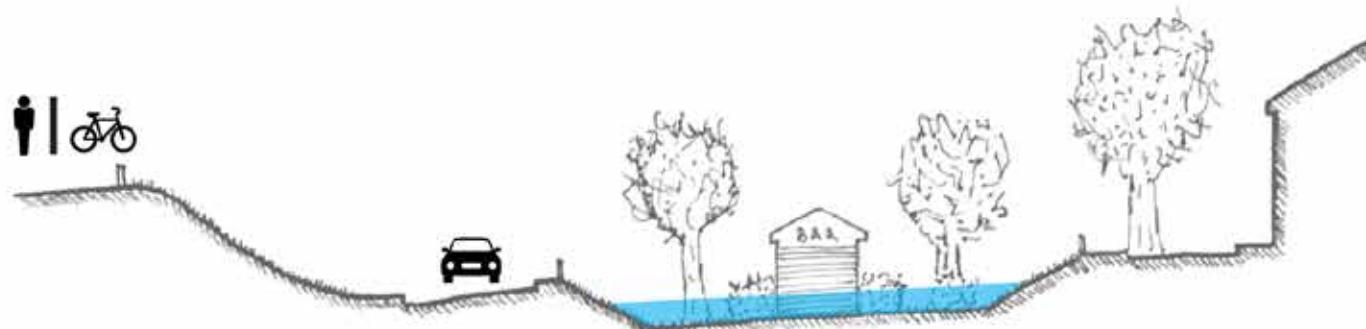


INFO POINT **i**

## 1 System



## 2 System



**Flooded parking**  
The basement level  
can be used as a  
water tank in case of  
flooding

**Flooded park**  
The park can be used  
as a water tank in  
case of flooding

DITCH





CAR PARK





CAR PARK





# MASTERPLAN

**Potential elevated  
cluster develop-  
ment pads located  
north of 84th  
street, near the  
pepper school**

**Group 4**

**Angela Caterini  
Elisabetta Bonaccorso  
Giovanni Carraretto**



## Analysis table: reflection point

1.

**S 84th St:**  
a levee for **people** and **water**

2.

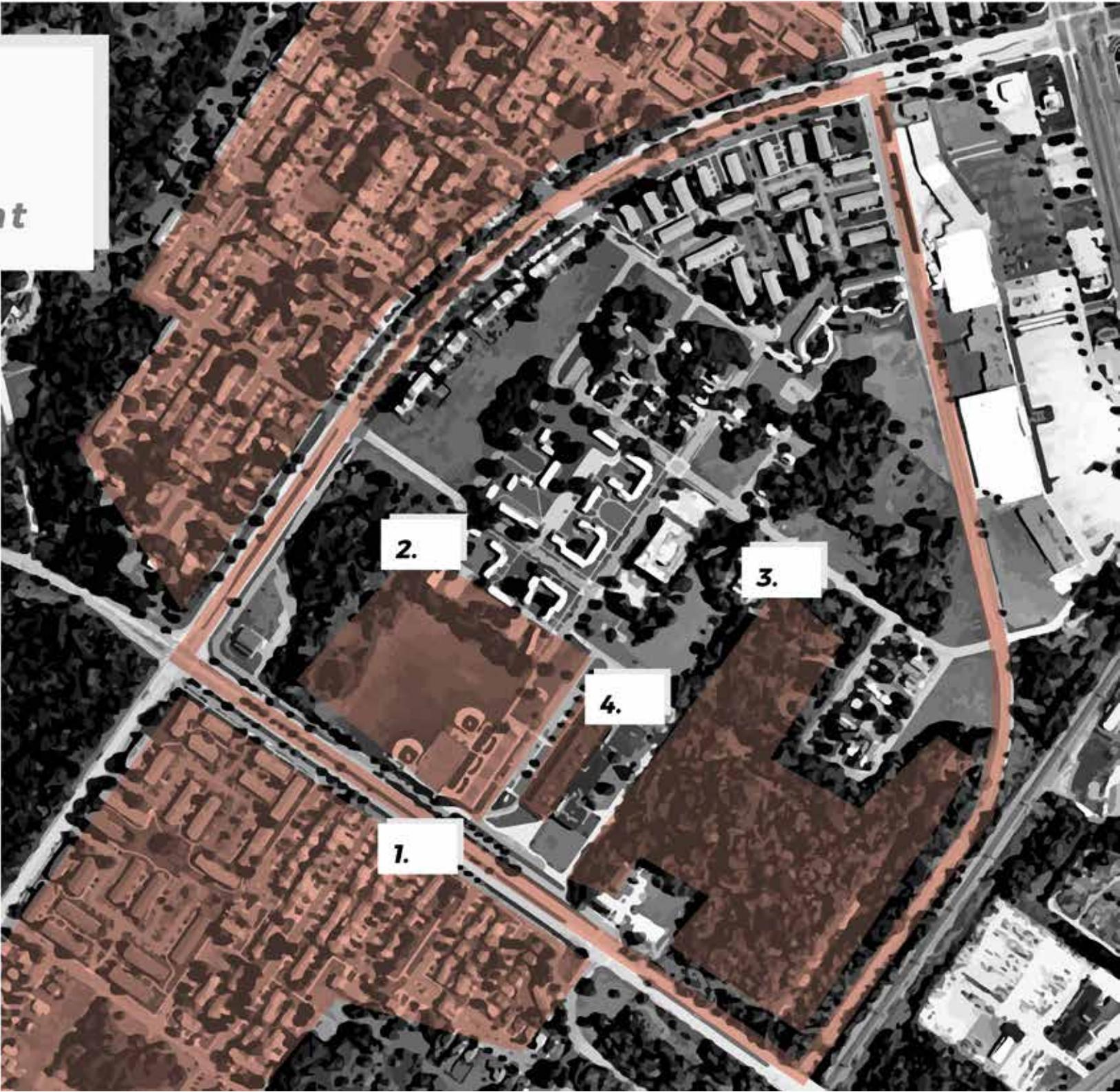
**S 84th St northern area:**  
**a natural basin**

3.

**S 84th St northern area:**  
**a green-black hole**

4.

**Eastwich scale difference:**  
**Peppers school building and**  
**housing**



## Analysis table: reflection point

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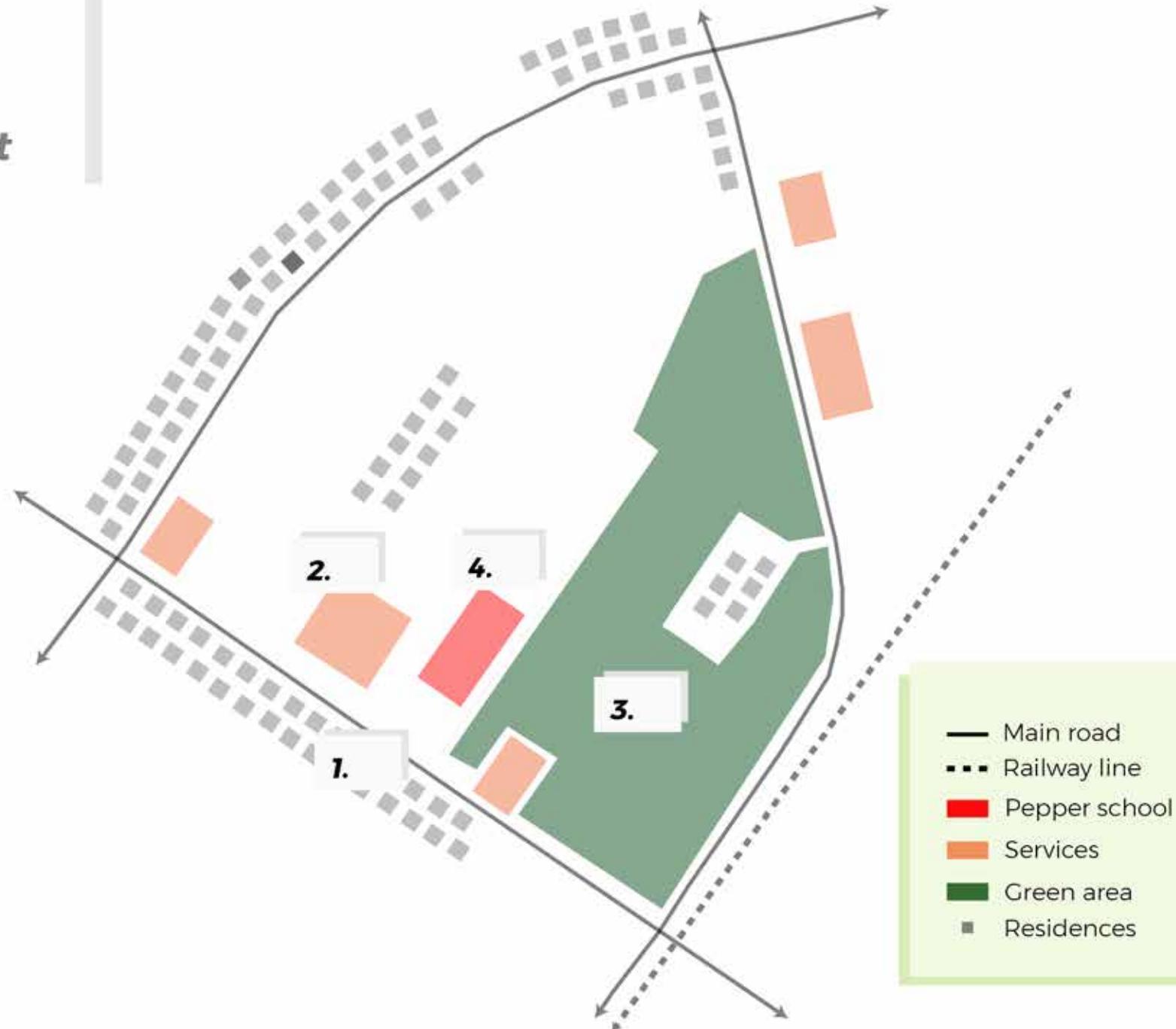
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Peppers school building and  
housing



## **S 84th St: a levee for **people** and **water****



# S 84th St: a levee for people and water



## Inhabitants' needs and will:

"The street is like a levee: when the water level grows up, it rarely exceed street level and flood the neighboring houses and streets"

"A potential elevated cluster development pads are not a solution. Where would the water flow, otherwise?"

"How could I reach safely the other side? How could I enjoy and reach that area?"

"I want to spend my time walking there and I want my sons to play safely there?"



sunny day



minimum rainfall



medium rainfall



maximum rainfall

How to go there safely?



## **S 84th St northern area: *a natural basin***



## ***S 84th St northern area: a natural basin***

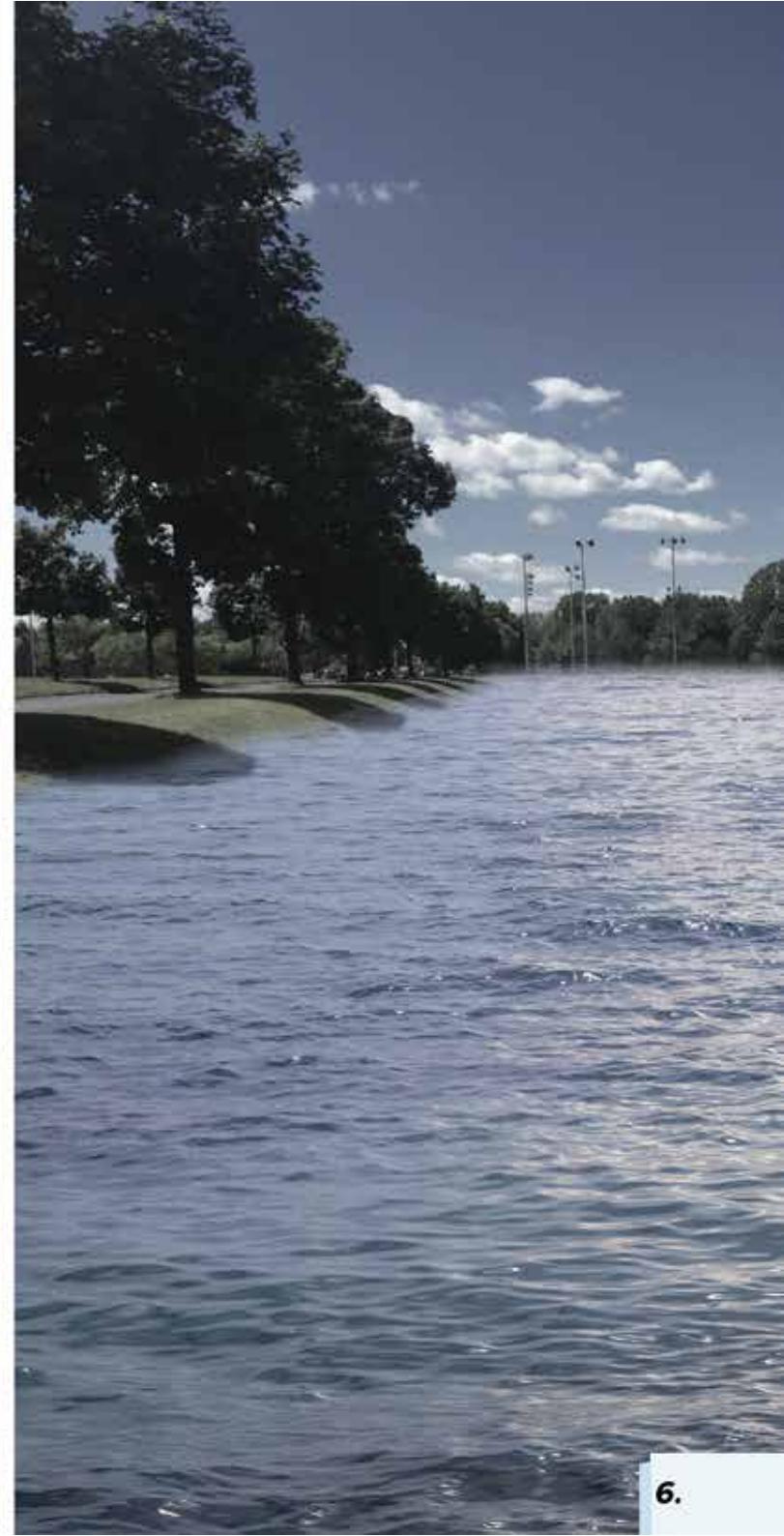
### ***Inhabitants' needs and will:***

"We would like to enjoy the whole area. It could be the new core of community."

"It is a natural flood storage, why fill it?"

"We need a community space, we haven't yet: a community center indoor and also outdoor."

"The basin prevents the water from reaching the southern houses."



## ***S 84th St northern area: a green-black hole***



## **S 84th St northern area: a green-black hole**

### **Inhabitants' needs and will:**

"The whole green area is now inaccessible. We cannot enjoy the area."

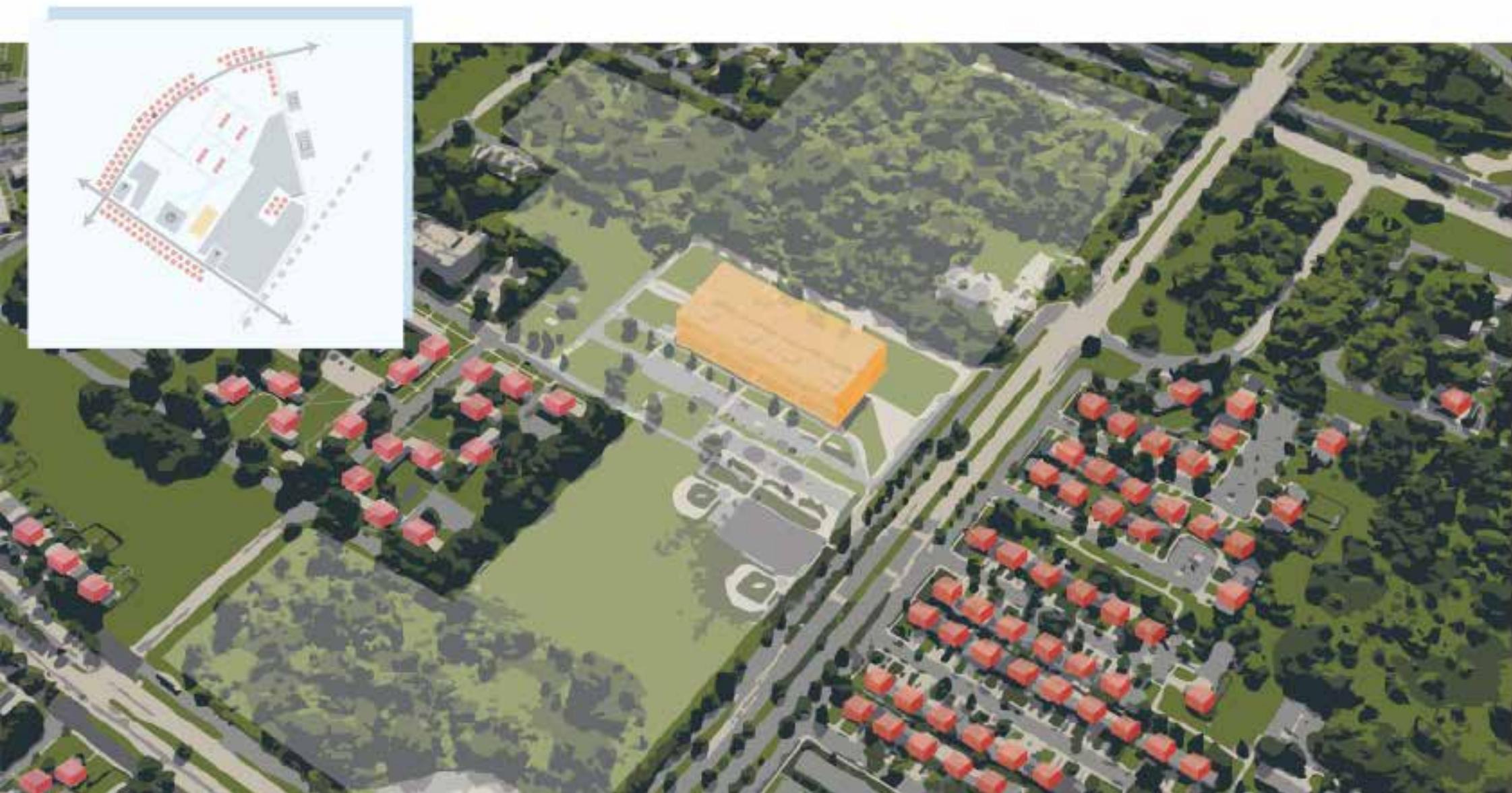
"In the core of our community we have an inaccessible black hole. It would be change into an equipped park: I love walk into the nature close to my house."

"The area is uncontrollable and this problem could generate insecurity."



## ***Eastwich scale difference: Peppers school building and housing***

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# ***Eastwich scale difference: Peppers school building and housing***

## ***Inhabitants' needs and will:***

"The school is a too big building. It never satisfied the initial question, in terms of dimensions, capacity and functions."

"We need to change it into a new community center. It is a focal point and it must continue to be."

"Pepper school is the bigger building of the community. Its abandonment created a huge void."

Small scale building: housing



Big scale building: Pepper school



**FLOODING**



Maybe, the right solution in the heart of the city

Eastwich safety core

# MASTERPLAN



## RAISED BUILDINGS

1



2



3



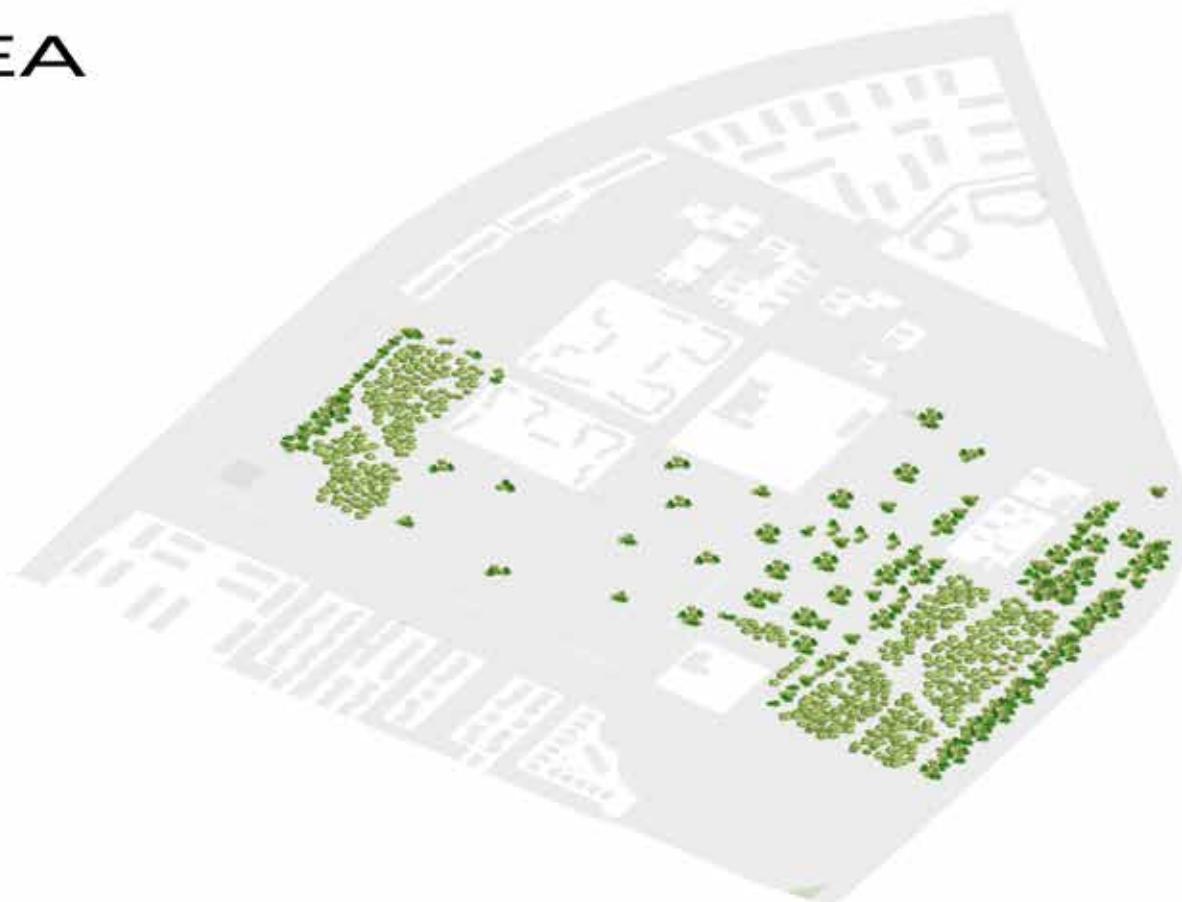
4



5



# GREEN AREA



# RAISED WALKING AND CYCLING ROUTES





Does Eastwich have a core?

# Sports, Services, Meetings





Does Eastwich have a core?

**Sports, Services, Meetings**





Do you need walks?

## High&low footpaths





Do you need walks?

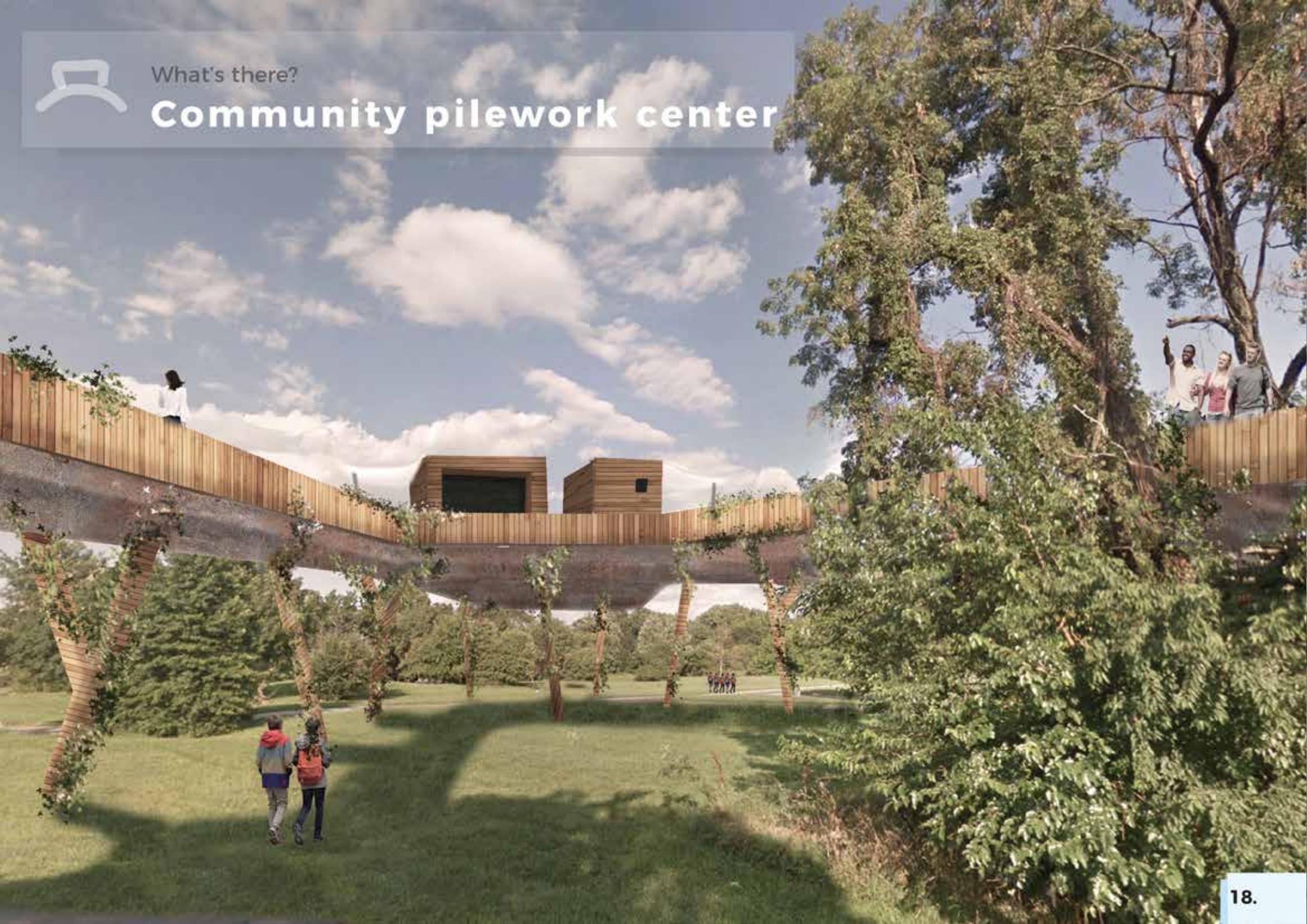
## High&low footpaths





What's there?

## Community pilework center





What's there?

## Community pilework center





A new levee system for Eastwich?

**Yes and it is enjoyable**





A new levee system for Eastwick?

**Yes and it is enjoyable**



# **FINAL MASTERPLAN**



**A WARM THANK YOU TO THE COMMUNITY  
OF EASTWICH AND THE PROFESSORS OF  
DREXEL AND UPENN UNIVERSITY.**