

THE GREEN LOOP

Types and mixes of land uses and their relationship to the public realm
& Economics of the public realm

How to understand the topic?

Components 1 - Types and mixes of land uses and their relationship to the public realm

How different types and mixes of land use are connected to the public realm and the quality of those connections!!!

Components 2 - Economics of the public realm

Investment in the public realm pays off!!!

The choice of public realm investment direction and investment approach is critical!!!

Investment in the public realm can bring considerable economic returns. This type of investment will bring three significant changes to the surrounding land.

What is the relationship between two components?

A high-quality public realm's economic benefits will bring more value to its surrounding lands, including land value and increased retail sell.

Mixed-use land-use tend to have a social-mixed population, and people can meet their basic daily needs within walking and cycle distance. People are then more willing and able to access these high-quality public realms. The more people the public space attracts, the greater its economic benefits will be. Development: The Value of Placemaking(2016) mentioned that a residential development mix builds stronger, more resilient communities with its town's economic vitality.

Thus a **GREEN LOOP** is formed between the land around the public space and the economy of the public realms. This green loop includes two aspects, one is **environmental sustainability**, and the other is **economic sustainability**.

1 Types and mixes of land uses and their relationship to the public realm



The connection between the land and the public realm is uneven

Residential



Direct connection

Residents have direct access to the public realm from the first floor and the stairs on the second floor.



Indirect connection

Residents are blocked from direct access to the public realm by the fence of the closed community.

Commercial office



Direct connection

Office buildings with permeable interfaces allow employees to step-in or step-out more easily between the public realm and office spaces while increasing interaction between indoors and outdoors.



Indirect connection

Many office buildings have parking lots arranged in front of them, and the parking lots prevent people from accessing the public realm and cause noise, pollution and even safety hazards.

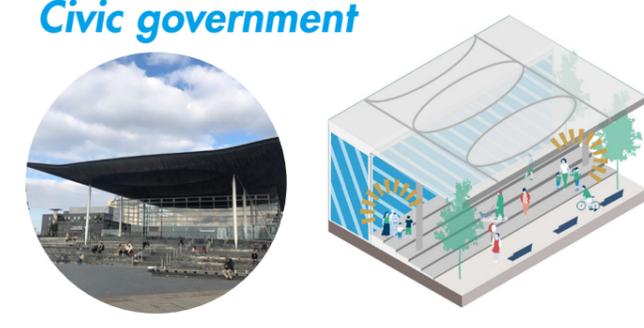
Mixed use



Direct connection

The ground floor of mixed-use land is often retail or a coffee shop, and these ground floors have high-quality, convenient connections to the public realm. Small-scale interfaces, permeable facade, and spill-out commercial are all features of direct connections to the public realm.

Civic government



Direct connection

Steps build a connection to the public realm, and steps also serve as a public area to provide gathering and resting functions

1. Leverage the existing building at eye-level

1 Diversity facade of building

Create transparent design and open ground floor zones for better connections from inside of buildings to the public realm. In residential areas, regular street-side entrances create a certain level of activity.



2 Activate the setback of building in human dimension

Turn building setbacks are underutilized wasteland or parking lots, into small pocket parks, neighbourhood meeting places, etc. or densify these setbacks through low-rise buildings.

0 - 5m setback:
Passage Space

5 - 10m setback:
Kiosks, seats

>10m setback:
Parks, sports facilities



3 Spill out the ground function into public realm

Allow certain functions in the ground floors to spill out onto public spaces. Allocate generous space for these outdoor functions but always ensure they do not block the pedestrian flow.

Coffee/Restaurant:
Outdoor seating



Retail/Shop:
Outdoor sell



Office/Apartment:
Outdoor greening and seating



2. Create Mixed land use in human dimension for new development

1 Combining density and comfort

Build on the human scale, optimize the connection between existing buildings with the public realm, optimize the connection of new buildings with the public realm, and make efficient land use.

1. From each building stacking and alone ...

2. Joined-up one side ...

3. A joined-up enclosed...

4. To A mixed joined-up laying enclosed...



2 Diversity building typology

Build upon the already existing, diverse mix of building typologies. Continue to protect the existing building heritage and renovate and activate the vacant historical buildings.

1. From ground floor building

2. To build-upon building



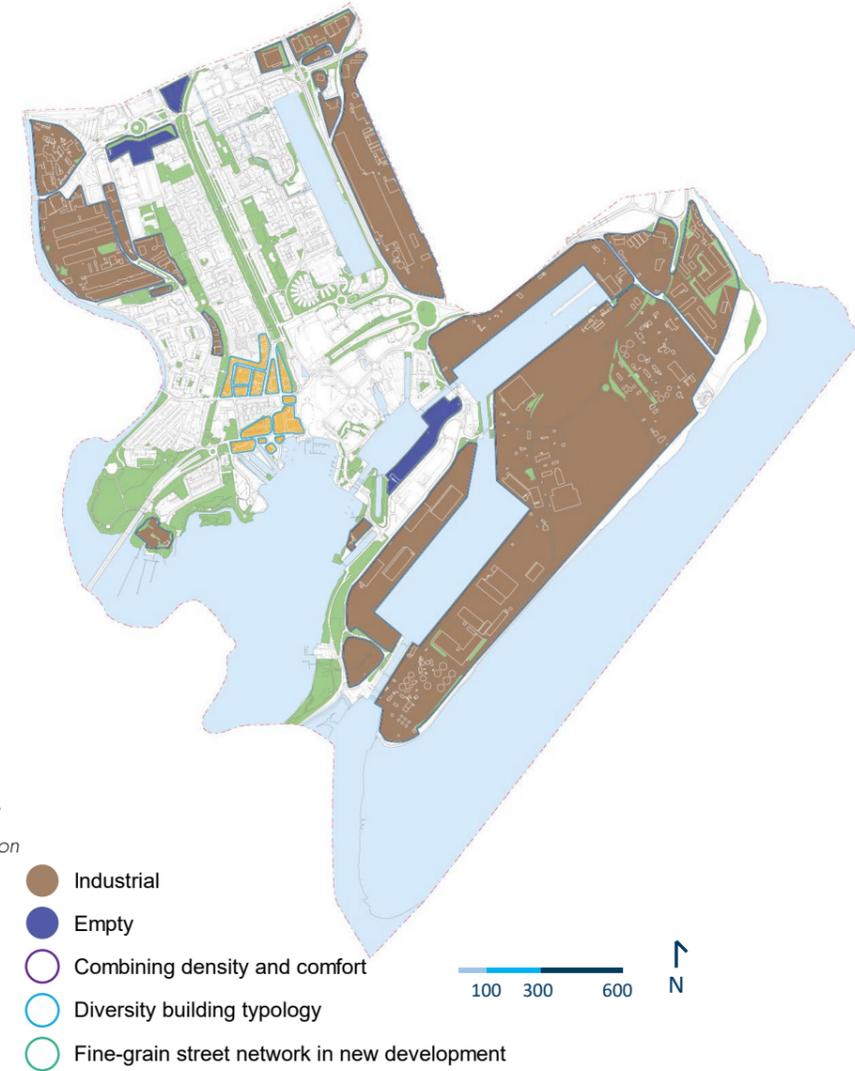
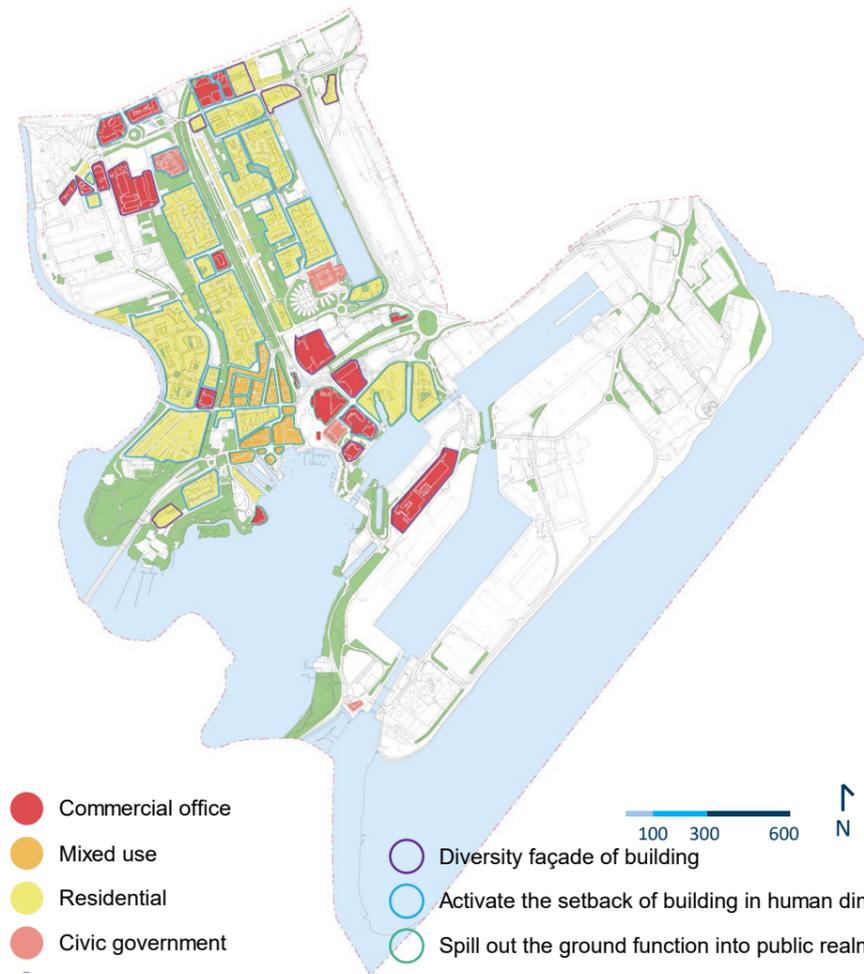
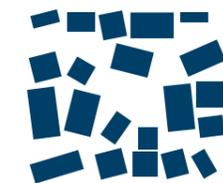
3 Fine-grain street network in new development

Implement human-scale neighbourhoods on new developable sites, breaking away from the conventional square grid road network, by twisting the buildings to form more varied small-scale public spaces.

1. From Grid...
Original grid block to maximize the use of land

2. Human dimension...
Identify pedestrian and cyclist streamline, optimize the block size

3. To Create more open space...
Rotate the block to create more open space with directly connection with buildings



3. Community land trusts (CLTs) as the main method of land retrofit in Butetown

Why Community land trusts (CLTs)?

With over 60% of the land in Butetown being **industrial and empty land**, these sites are critical for future economic development and liveable living in the area. Making a sustainable and targeted economic investment strategy is critical for Butetown.

The main characteristics of **Community land trusts (CLTs)** are closely linked to the area's development strategy.

Main characteristics

- 1 Community land trusts (CLTs) are set up and run by **ordinary people**.

Potential Impact: Residents are **more receptive** and more likely to believe that it is **not for-profit institute**.

- 2 Ensuring that it remains **genuinely affordable**, based on what people actually earn in their area.

Potential Impact: Setting prices based on each individual's income can further **safeguard the diversity of community** residents and **avoid gentrification**.

- 3 The community is integrally **involved throughout the process in key decisions** like what is provided, where, and for who.

Potential Impact: **Public participation**, where individuals can decide on the style of their own houses, **enhancing identity** and a sense of **belonging**, and **enhancing the architectural diversity** of the community.

- 4 CLTs model doesn't just have to apply to housing, it **can apply to any form of business or development**, like considering how they can make their communities more **sustainable** by generating renewable energy.

Potential Impact: The concept of **sustainability correspond the development concept of the world** and will contribute to the establishment of **an ecological community**.

- 5 CLTs can also set up **community shops, take over the local pub**, develop workspaces or other community assets or enterprises.

Potential Impact: **Further enhance the functional mix** of the community, thus promoting the use of walking and cycling.

Those characteristics can be added in CLTs

- 1 Community residents **collaborate to manage public space** within the community.

Potential Impact: Enhance a sense of **community belonging** while **form informal relationship** between residents.

- 2 Set **minimums proportion of different ethnic groups** in the community.

Potential Impact: **Ensure the integration of the various races** in the community, but it may be **at the expense of freedom of choice**. Community residents **collaborate to manage public space** within the community.

How the three strategies work?

1. Leverage the existing building at eye-level

- 1 Diversity facade of building
- 2 Activate the setback of building in human dimension
- 3 Spill out the ground function into public realm

2. Create Mixed land use in human dimension for new development

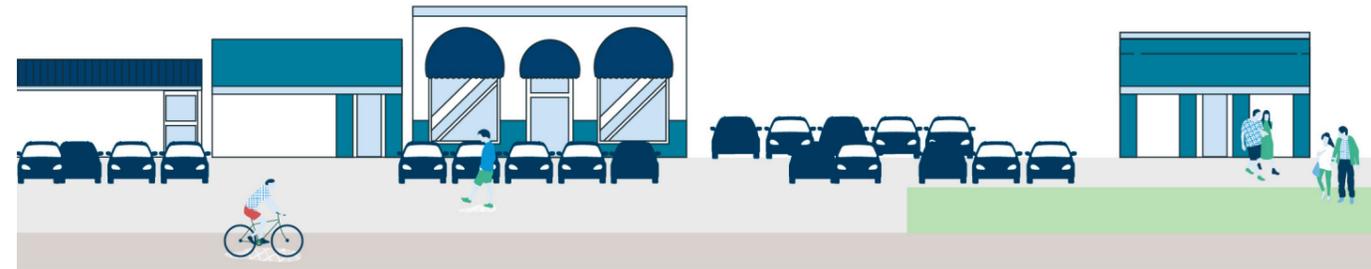
- 1 Combining density and comfort
- 2 Diversity building typology
- 3 Fine-grain street network in new development

3. Community land trusts (CLTs) as the main method of land retrofit in Butetown

- 1 Community land trusts (CLTs) are set up and run by ordinary people.
- 2 Ensuring that it remains genuinely affordable, based on what people actually earn in their area.
- 3 The community is integrally involved throughout the process in key decisions like what is provided, where, and for who.
- 4 CLTs model doesn't just have to apply to housing, it can apply to any form of business or development, like considering how they can make their communities more sustainable by generating renewable energy.
- 5 CLTs can also set up community shops, take over the local pub, develop workspaces or other community assets or enterprises.

Those characteristics can be added in CLTs

- 1 Community residents collaborate to manage public space within the community.
- 2 Set minimums proportion of different ethnic groups in the community.



From



To

Pilot design

The Green Loop CORE

Plan basic information:

Total Area: 19.9 Ha
FAR: 2.8

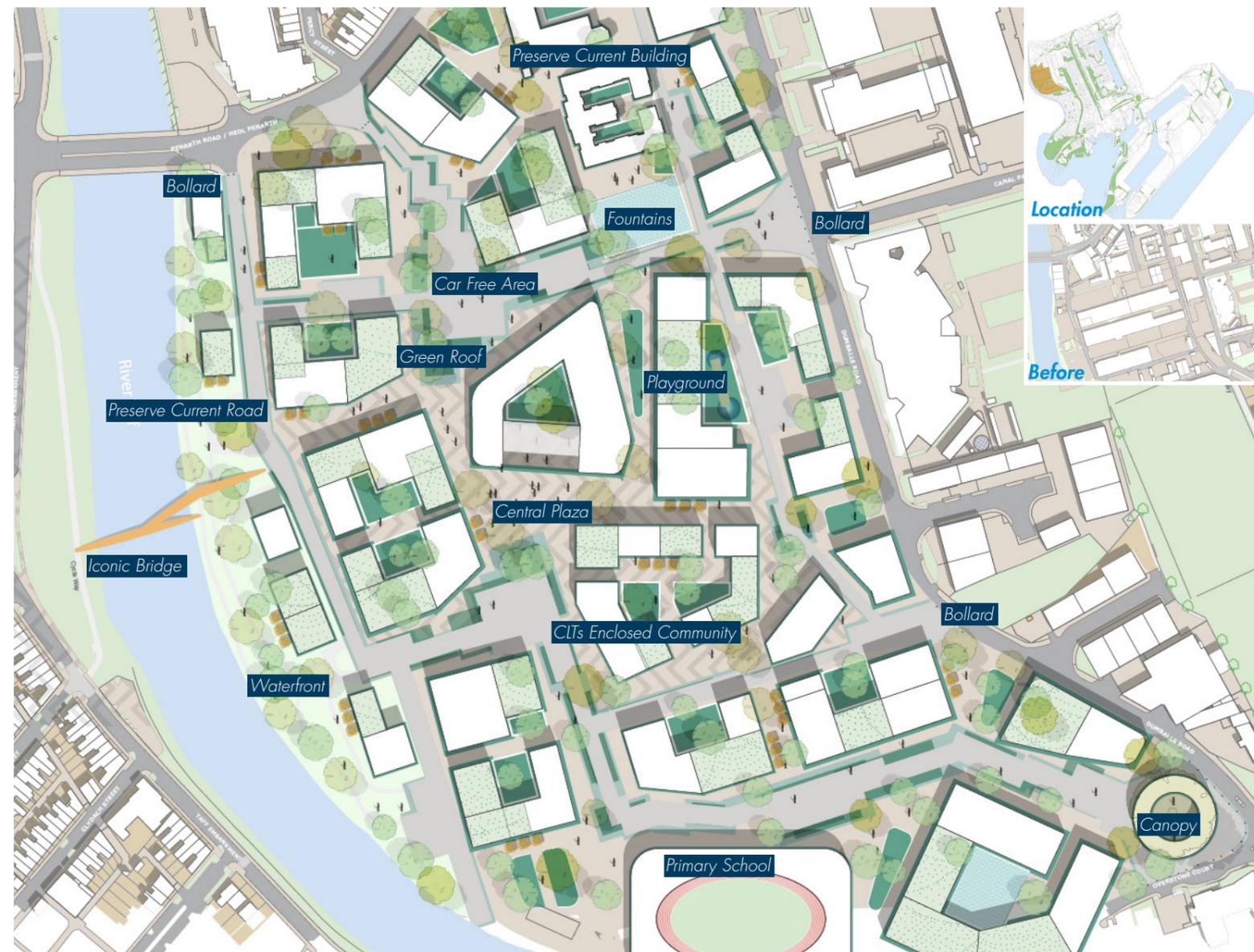
The pilot site is located on the west side of Cardiff Butetown, adjacent to River Taff, covering 19.9 hectares. The primary function of the existing site is industrial, and there is no listed building.

Its unique location is located on the south side of Cardiff Central (CDF), only 150 m. The west side is adjacent to River Taff and has excellent public space conditions. Therefore, from ecology, transportation and location, this area has significant development potential.

The pilot design also reflects the three main strategies above.



Section



Master plan



Before

Location



After