


## Zinneke

by Catherine Fabry / 2022-12-09 09:54:09 / Belgique / 139 / FR

Renovation



Primary energy need :  
**0** kWhep/m<sup>2</sup>.an  
(Calculation method : PEB - Bxl )

**ENERGY CONSUMPTION**

Economical building Building

< 50	A
51 à 90	B
91 à 150	C
151 à 230	D
231 à 330	E
331 à 450	F
> 450	G

Energy-intensive building

**Building Type** : Other building  
**Construction Year** :  
**Delivery year** : 2021  
**Address 1 - street** : Place Masui 13 1000 BRUXELLES, Belgique  
**Climate zone** : [Cbc] Mild, dry winter, warm and wet summer.

**Net Floor Area** : 4 262 m<sup>2</sup> Autre type de surface nette  
**Construction/refurbishment cost** : 2 275 000 €  
**Cost/m2** : 533.79 €/m<sup>2</sup>

### General information

Renovation project of the former tax stamp printing works on Place Masui, i.e. a set of buildings including workshops, 3 houses, a central building called "Château", with a view to making it operational to accommodate the offices of the non-profit organization Zinneke, the creative workshops of the Zinneke parades, professional training spaces, creative spaces with artist residencies and other cultural activities.

### See more details about this project

- <https://www.zinneke.org/Masui>
- <http://www.ouest.be/index.php/portfolio-items/zin/>
- <https://www.matriciel.be/zinneke/>
- <https://rotordb.org/en/projects/zinneke-feder-masui4ever>
- <https://brusselsarchitectureprize.be/fr/project/zinneke/>

### Data reliability

Assessor

### Photo credit

## Stakeholders

### Contractor

Name : Zinneke asbl

Contact : Myriam Stoffen | +32 2 214 20 07 | info@zinneke.org

<https://www.zinneke.org>

### Construction Manager

Name : Ouest architecture

Contact : Jan Haerens | +32 2 850 73 82 | info@ouest.be

<https://www.ouest.be>

### Stakeholders

Function : Thermal consultancy agency

MATRIciel

Fabrice Deryn | +32 10 24 15 70

<https://www.matriciel.be>

Energy and environmental guidance, study of special techniques, EPB Advisor mission

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Function : Others

Rotor

Gaspard Geerts | +32 488 05 22 00 | info@rotordb.org

<https://www.rotor.org>

Architectural co-design and reuse advice

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Function : Structures calculist

JZH & Partners

+32 2 675 25 20 | partners@jzh.be

<https://www.jzh.be>

Stability studies

### Contracting method

General Contractor

### Owner approach of sustainability

On this site, Zinneke hopes to build a vast space for meeting, creation, training and permanent production adapted to the needs of the Zinneke project and, more broadly, of the city and its neighborhoods. This production center with multiple potentials is nothing more than a vast laboratory, an incubator for socio-artistic actions and is the keystone of the collaborations that Zinneke develops with and between the inhabitants, associations, artists and other social, cultural, economic and environmental players in Brussels and beyond.

The project is also intended as a large-scale pilot project for the development of infrastructures from the reuse of construction materials, while respecting the existing ones as much as possible. Finally, as far as possible, the work will be carried out by people who will be trained in the versatile trajectories of the artisanal work of reconstruction.

### Architectural description

The project focuses on the existing qualities of the buildings, the reorganization and the optimization of their potentials. We restore the original circular organization of the printing workshop and create large openings between the existing spaces. The fixed installations of the workshops and the stock of reused materials are organized in the adjacent building, in order to free up the central spaces and give them flexibility. On the first and second level, some small-scale project spaces are organized with improved energy performance.

The central core of the project is a series of meeting places, where the various actors of Zinneke's projects can come together and share their stories and ideas: an active entrance courtyard and a terrace, the main access via the communal kitchen, an exhibition space, and the central patio in the middle of the various workshops.

The site's ambition is to become an open laboratory of social and artistic initiatives for the entire city, with a diverse mix of users and lively activity that focuses on

realizing Zinneke's core values.

The vacant houses on the side of the street constitute the oldest part of the site. They will be renovated, connected and activated with the workspaces of the members of the Zinneke team. The common wall is open and links the different floors. Without altering the historical profile of the facade, we subtly change the expression of a rather formal townhouse into an inviting and creative environment, a lantern for the neighborhood. We illuminate the building from the inside out, we open the entrance doors and we connect the height of the cornice of the adjacent houses with a bright soft yellow line.

## Energy

### Energy consumption

Calculation method : PEB - Bxl

Breakdown for energy consumption :

The project falls into the PEB category of work: simple renovation.

It is not subject to compliance with a regulatory maximum primary energy consumption.

The building is not subject to regulatory energy certification.

### Envelope performance

More information :

In order to minimize demolitions/reconstructions, the volumetry of the existing buildings is retained.

Most of the walls of premises requiring high working comfort are insulated, most often from the inside, in particular to preserve the architectural character of the old facades.

Insulation makes it possible to achieve the regulatory loss coefficient imposed on new buildings.

Storage or workshop activities with high heat release and requiring little or no heating are installed in premises that are more difficult to insulate during renovation.

## Renewables & systems

### Systems

Heating system :

- Condensing gas boiler

Hot water system :

- Condensing gas boiler

Cooling system :

- No cooling system

Ventilation system :

- Single flow
- Double flow heat exchanger

Renewable systems :

- No renewable energy systems

Other information on HVAC :

The site is equipped with double-flow ventilation with high-efficiency heat recovery or single-flow ventilation regulated according to indoor conditions (artists' accommodation) and gas condensing boilers.

A 5,300 m<sup>3</sup>/h ventilation unit was recovered from a construction site in Brussels. The maneuver was to dismantle part of the group to ensure transport and delivery to the planned technical room (attic under the roof = cramped space) + reassembly + cleaning + replacement of consumable parts such as filters and certain pressure sensors.

The installations will be managed according to real needs: timetables, regulation of lighting according to natural light and absence, CO<sub>2</sub> or VOC management of ventilation, etc.

### Smart Building

BMS :

A GTC is present for remote modification of the pre-programmed set points (time, temperature, etc.) and zoning is provided according to demand (by floor so as not to heat the entire building).

The same principle is applied for ventilation,

### Urban environment

Creation of a garden inside the island, programmatic opening towards the neighborhood and relationship towards Place Masui, invitation of different groups of Brussels residents within the Zinneke project.

Land plot area : 2 430,00 m<sup>2</sup>

Built-up area : 76,00 %

Green space : 585,00

## Costs

### Construction and exploitation costs

Cost of studies : 178 400 €

Total cost of the building : 2 275 000 €

Additional information on costs :

Architecture: €1,060,000 excluding VAT

HVAC: €535,000 excluding VAT

SAN: €116,000 excluding VAT

ELEC: €380,000 excluding VAT

## Circular Economy

### Reuse : same function or different function

For each batch : Reused Materials / Products / Equipments :

At the end of the work, the following results were achieved:

- 94% of the building by mass could be held in place. It is the result of an architectural strategy based on minimal interventions to make the most of existing spaces with the lowest possible material consequences.
- Among the materials used for the new fittings, 12% by mass are second-hand. They include: ~30 steel beams used as lintels for the new bays, 5 window frames that make up the rear facade of one of the houses on the street, 450 m<sup>2</sup> of rock wool insulation panels, 2 elegant steel from the former seat of the Flemish government, 90 m<sup>2</sup> of azobé wood planks for a new terrace, 300 m<sup>2</sup> of recovered oak parquet for the offices, around twenty radiators, more than 20 doors (including doors firewall), and finally a complete ventilation unit salvaged from a downtown office tower.

Field of use and material origin :

As part of the co-design process, Rotor primarily helped Zinneke achieve its reuse goals: identifying opportunities for sourcing reclaimed materials, matching reuse practices with different procurement procedures (with help of an external lawyer), and facilitate the implementation of the reuse by the different parties involved in the project

### Social economy

Social economy and professional integration :

Wherever possible, the work has been carried out by people who have been trained in the versatile trajectories of artisanal work of reconstruction within the framework of the project itself.

### Websites

<https://rotordb.org/en/projects/zinneke-feder-masui4ever>

### Reproductibility and Innovation

The project is intended as a large-scale pilot project for the development of infrastructures from the reuse of construction materials, while respecting the existing ones as much as possible.

## Indoor Air quality

The general choice was to use natural materials (wood fiber insulation, fermacell, etc.)

## Comfort

### Acoustic comfort :

At the level of the large workshops, acoustic elements recovered from a demolished office building were applied to improve the acoustic quality.

Between the large workshops, large acoustic doors have been installed in order to be able to work independently.

## Quality of life and services

The site's ambition is to become an open laboratory of social and artistic initiatives for the entire city, with a diverse mix of users and lively activity that focuses on realizing Zinneke's core values.

The building opens onto the neighborhood and highlights the site's artistic activity. Without altering the historic profile of the street side facade, we subtly change the expression of a rather formal townhouse into an inviting and creative environment, a lantern for the neighborhood. We illuminate the building from the inside out, we open the entrance doors and we connect the height of the cornice of the adjacent houses with a bright soft yellow line.

Inside the site, all the studios and workshops are organized around a "common heart", with meeting and meeting functions (kitchen, canteen, garden, terrace).

## Carbon

## General infos

Pilot project for the reuse of construction materials: construction elements, finishes, technical installations. Production carbon expenditure is reduced to zero.

Most of the materials are "harvested" in the Brussels region; they were barely transported.

## Life Cycle Analysis

### Material impact on GHG emissions :

Un descriptif qualitatif de tous les éléments liés au choix des matériaux de construction a été réalisé, notamment pour le réemploi de matériaux.

### Eco-design material :

A qualitative description of all the elements related to the choice of ecological materials has been produced, in particular for the insulation.

## Contest

## Reasons for participating in the competition(s)

This exemplary renovation competes in this category because it is a circular economy pilot project for the application of reused materials on a large scale in the construction sector, while respecting the existing one as much as possible.

