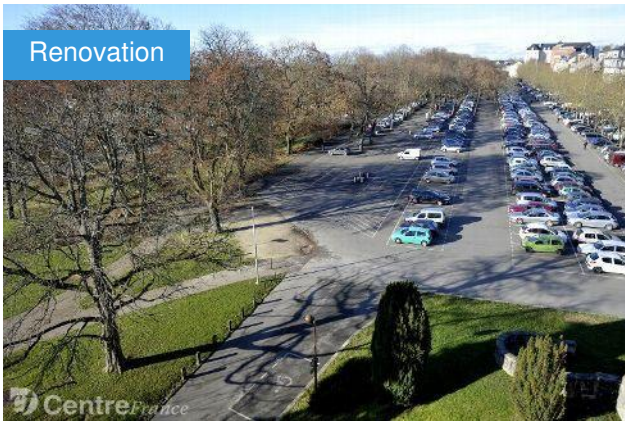


## Baudens ecodistrict, Bourges

by [Veronica Restrepo](#) / 2015-12-09 12:21:04 / France / 8821 / FR



**Address 1 - street** : 18000 RUE RANCHOT - 18000 BOURGES, France

**Population** : 1 030 hab  
**Number of jobs** : 9 600 000 emplois  
**Starting year of the project** : 2006  
**Delivery year of the project** : 2018



5 ha



13 000 000 €

### ID CARD

**Territoria manages and sets up the Baudens eco-district according to the following objectives: to create an accessible district, permeable, structured by four shared living areas, master car uses and propose alternative transport modes, propose a varied housing offer and ensure the architectural quality of buildings and public spaces.**

- The project is located on a 5 ha wasteland of a former military hospital, close to the center of Bourges. It is served by four bus lines. It allows the creation of 390 housing units, including 110 social housings, services, offices and shops.
- As part of a comprehensive urban renewal project, new construction will also gradually be incorporated smoothly, respecting the surrounding existing urban fabric across the area, turning it into an open area on the outside.
- Built in 1875, the Baudens hospital was a military hospital until 1998. It consists of twelve pavilions distributed on each side of a central building in classical style joined by a covered gallery; as well as further buildings.
- Winner of the 2011 call for projects

### Programme

- Housing
- Businesses and services
- Public facilities and infrastructure
- Public spaces
- Green spaces

## Project progress

- Delivery phase
- Operational phase

## Procedure type

- Urban développement permit

## Prescriptions and zoning

- Particular conventions

## Key points

- Governance
- Quality of life
- Economic development

## Approaches used

- Ecodistrict national label
- Agenda 21

## More info

<http://www.ecoquartier-baudens.fr/>

## Data reliability

3rd part certified

## TERRITORY

### Type of territory

#### **An efficient land and an attractive and dynamic area fitting its urban environment**

Prefecture of the Cher department (18), and third largest city in the region Centre, Bourges counts 66,700 inhabitants and covers an area of 68.74 km<sup>2</sup>. Bourges is one of the greenest cities in France with 135 hectares of marshland in the heart of the city and more than 50 m<sup>2</sup> of green space per inhabitant.

#### **Sector**

The district is circumscribed in its environment in a 4 streets quadrangle: Boulevard du Marechal Joffre, avenue de Gionne, rue de l'Abbé Moreux and rue Ranchot; the district touches also the boulevards and radial access to the city center, between the suburban fabric and outskirts.

According to the local urbanism plan (PLU) applied to the territory of the city of Bourges, the area is located UA5 and UB4 areas.

### Climate zone

[Cfb] Marine Mild Winter, warm summer, no dry season.

## More info

<http://www.ville-bourges.fr/>

## KEY FIGURES

### Green areas, roofs included

Green areas, roofs included : 5 150 m<sup>2</sup>

## Public spaces area

Public spaces area : 23 329 m<sup>2</sup>

## Office floor area

Office floor area : 3 250 m<sup>2</sup>

## Commercial floor area

Commercial floor area : 4 950 m<sup>2</sup>

## Public facilities floor area

Public facilities floor area : 1 700 m<sup>2</sup>

## Housing floor area

Housing floor area : 32 930 m<sup>2</sup>

## Refurbished floor area

Refurbished floor area : 5,00 ha

## Number of residential units

Number of residential units : 390

## Number of social housing units

Number of social housing units : 110

## Green spaces /inhabitant

5

## Public spaces/inhabitant

22.65

## Amount of the investment taken in charge by the local authorities

Amount of the investment taken in charge by the local authorities : 3 400 000 € HT

## Total of subsidies

Total of subsidies : 6 200 000 € HT

## Detail of subsidies

9.6 million euros before tax 3.4 million euros of public investment

## GOVERNANCE

### Project holder

Name : General Council of Cher

Type : Departement

General description :

Community at the departmental public service.

Competences/Missions:

- Social actions,
- colleges and school transport,
- road maintenance,
- public reading,
- economic development and tourisme.

The Baudens eco-district project is based on the implementation of an Environmental and sustainable development charter which involves General Council of Cher, the developer and buyers of plots and constructors. This document developed in 2007 is part of the strategy of the General Council of Cher in favor of sustainable development and sets out mandatory requirements and excellence of the project.

Several priorities have been defined by the General Council of Cher:

- energy efficiency
- accessibility,
- the environmental quality of the district (managements of projects, materials, travel, water, noise, the visual comfort, architectural integration and quality of the building; organization of space)
- the exemplary (global cost approach, project evaluation - monitored and controlled according to criteria of sustainable development, education and communication on eco-citizenship).

## Project management

### Description :

This property of 5 hectares was acquired by the General Council of Cher in 1999 and 2000 with the MRAI (Completion of Mission Estate Assets) to implant its services.

This project failed in its initial conception.

The decision was taken in 2006 to make a new reflection on its future. By that time the decision to install an eco-district on this location was taken.

The license to develop was filed by SEM Territoria in July 2010 with the City of Bourges after consultation with the municipal planning department, the services Bourges Plus, the Architecte des Bâtiments de France (Heritage authority in architecture) and residents of Baudens.

It was issued by the city of Bourges 2 March 2011 authorizing "SEM Territoria to subdivide an area of 51 109 m2, consisting of 25 lots for domestic constructions of housing, shops, services and equipment . "

### Partnerships

- with the city of Bourges
- with the agglomeration of Bourges Plus

### At several levels

- prior diagnoses (SCOT, PLU, PDU, PLH ...)
- taking into account the constraints provided in urban planning documents of the city and agglomeration
- the management of present and future technical elements (parks, urban furniture, networks)
- the multidisciplinary management of the project (participation of the city and agglomeration in the monitoring committee, regular exchanges between services and elected)

### Commitment CG18 and its make this neighborhood partners to leverage the sustainable city in cooperation with partners

- With a variety of diagnoses identifying specific needs for defining a suitable programming and suitable
- Steering expanded project, multidisciplinary and innovative linked the client position of the General Council of Cher with tracking meetings COPIL + + + COSUI thematic meeting + Public meetings ...)
- Cross and shared manner of operation financed generating a credible economic balance
- Existence of environmental quality charter between the owner and the developer Charter environmental quality between the CG and Territoria SEM) + DD + roadmap Cher 2015
- A study in 2006 by the Citémétrie cabinet that was intended to prepare an inventory of the housing situation

In conclusion, this project is led by an atypically Department in line with the recommendations of the Grenelle Environment Forum on governance and the participation of all institutional actors, associations and citizens. He ultimately transcends the perimeters and the competences of each partner to reach a joint project.

## Project stakeholders

SEM Territories

Function : Contractor

Project developer, dealer of the General Council of Cher. It organizes the design of the urban project, realizes public spaces and also sells land and ensure consistent construction with sustainable development of eco neighborhood.

TERRITORIA - Centre d'affaires Lahitolle 6 Rue Maurice Roy18000 Bourges Téléphone : 02 48 50 96 40

[Construction21 company page :](#)

<http://www.territoria-bourges.net/>

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Atelier Ruelle

Function : Construction manager

Architect - urbanist project manager, appointed by the General Council of Cher - 2007

5, rue d'Alsace 75010 Paris, France Tel : 01 55 04 89 99 atelierparis@atelier-ruelle.fr

[Construction21 company page :](#)

<http://www.atelier-ruelle.fr/>

### Quality of life / density

- A high density and quality public spaces (the garden under the wind + Square + Square Gionne BAUDENS)
- A customary party: 4 Ways of Living: courts / homes / small collective in the gardens / city houses

### Net density

-0.02

### Culture and heritage

#### ***Favor refurbishment, reuse, conversion of existing built heritage***

- The Baudens hospital could be the first specimen in France of an hospital with independent pavilions, with one floor only, and one one room as demanded by hygienists and physicians during the 19th century.
- The central pavilion is maintained and will be occupied by the services of the Commerce Chamber of the Cher
- Taking into account the history of the site (conservation of 8 buildings out of 12)
- 16.32% of the surface of the eco-district are refurbished.

### Social diversity

#### **Integration of the site on the urban territory which it depends and which it takes account of the specific solidarity and intermingling +**

- Implantation of shops and services in keeping with the surrounding neighborhoods (5 495m<sup>2</sup> of activity programmed, + 32 165 jobs for accommodation 930m<sup>2</sup>)
- An operation that opens to the city in line with the surrounding buildings and removes the effect of urban enclave.
- Urban renewal operation scale developing a joint housing program (110 of 390 social housing) activities, equipment on a strategic site
- Social housing suitable for people with reduced mobility

#### ***Four shared living spaces***

- Place Baudens: this will open up the area with its development, the presence of the garden in the background and the beginning of the driveway instead of Honor. Place Baudens committed to penetrate to the interior of the district. It will also offer a living space and parking in front of the Pôle Emploi building.
- Garden Leeward: it is a play promenade and gardens visible from the south Baudens instead relying on the existing plant heritage. Northeast, the garden opens on Avenue Gionne, high school Pierre Emile Martin and waterfront homes.
- The Court of Honor: this green space will provide a meeting place and entertainment to locals and residents. The Court of Honor will also mark the conserved heritage that surrounds it and offer parking, especially for people with reduced mobility.
- The forecourt of the school: this space is an urban composition in relation to the scale of the school, offering shops and 40 parking spaces. This place is still under study.

### Social inclusion and safety

#### ***Solidarity and intermingling***

- Solidarity with the most vulnerable (elderly, young, PMR, minimum incomes ...)
- Program based on a triple mix (functional, spatial, human)

GC18 and the commitment of its partners to make this area a lever towards a harmonious sustainable city

### Ambient air quality and health

#### **Particular attention paid to gray energy, use of natural materials**

- minimum volume of wood on the operation will be 10 dm<sup>3</sup> / m<sup>2</sup> of SHON)
- health quality of materials that will need to justify their non carcinogenicity,
- justification of labels or certification FSC or PEFC type for wood;
- justification or type labels Blue Angel certification, NF Environment or equivalent for varnishes, paints and other surface treatments. "

### Local development

#### **An efficient land + an attractive and dynamic area inserted into its urban environment**

- diversity of private public facilities on a dense website
- dynamic and balanced economic structure in terms of its local context

- support for the social economy (public order)
- favored alternative movements (in line with the principles of the PDU of the agglomeration of Bourges Plus)

Commitment to CG18 and its partners in this neighborhood a lever for development of this site in line with the development of the rest of the city by way of illustration see the document '24 hours of life of residents in 2020)

- Cross and shared manner of operation financed generating a credible economic balance. 5 495m<sup>2</sup> of programmed activities, 165 jobs + 32 930m<sup>2</sup> for housing. Implementation of structuring activities (Chamber of Trade, Pôle Emploi)
- Implantation of shops and services in keeping with the surrounding neighborhoods
- Implementation of structuring activities (Chamber of Trade, Pôle Emploi)
- Functional diversity across islets

## Functional diversity

**Target 10 of the environmental quality charter, "the organization of space" where it is required of the developer "creating a functional mix adapted to the size and needs of the area and riparian areas. "**

- Social housing = 10 400 m<sup>2</sup> SHON
- Private accommodation = 22 530 m<sup>2</sup> SHON
- Service Activity 4 = 4950 m<sup>2</sup> SHON
- Public spaces = 2 hectares (1 garden Leeward, 1 main courtyard, 2 car [Baudens, Gionne])
- Implantation of shops and services in keeping with the surrounding neighborhoods (5 495m<sup>2</sup> of activity programmed, + 32 165 jobs 930m for lgt)
- A functional mix design around 4 Ways to Living in the neighborhood: classes / homes / small collective in the gardens / cities houses
- An operation that opens to the city in line with the surrounding buildings and removes the effect of urban enclave.

## % of public spaces

47

## % of office area

7

## % of commercial area

10

## TRANSPORT

### Mobility strategy

In the document project organization framework (Charter of environmental quality and sustainable development), one of four selected priority themes addresses the accessibility.

#### **A multidimensional accessibility**

Implementation of consultation and use of expertise on disability issues with APF in paths and movements (privileged partnership) As such a work in permanent consultation with the Association for the Paralyzed France Cher is to discuss issues paths in the eco-neighborhood.

#### **A controlled use and secure car**

Quad hospital Baudens is defined by the paths that surround (Av Gionne, Ranchot street, street Abbot Moreux Boulevard du Maréchal Joffre, red traffic lanes on the plan). Each component of the project is well serviced by one of these streets creating a neighborhood in which motorized traffic are favored. Thus space is meshed with a gentle frame pedestrian and cycle lanes (yellow tracks on the traffic plan). A service road enters the area to allow access to the parking and housing, it is a shared space without barriers to slow traffic (blue route). This development will favor pedestrians and soft modes of transport (bicycles, scooters ...), proximity to downtown and services allow residents to reduce car dependency. Parking will also be organized to forget the presence of the car, 2/3 of the vehicles will be underground parking and air car parks will be landscaped.

- Good connection to public transport (bus + 4 + pedibus FREE shuttle connecting to the city center every 15 minutes) and promotion of cycling inducing a limited role of the car in the neighborhood.
- 1.43 parking / logt
- 100% coverage by the TC (% dwellings within 500m of a public transport stop)

As for public transport discussions are in progress in the renewal of the Urban Transport Plan with Bourges Plus (agglomeration), on a possible extension of the free shuttle to the site of the eco-neighborhood (extension of 'Séraucourt stop Baudens).

Regarding soft movements there is currently a walking bus on the Beaumont school which is located near the eco-neighborhood.

## SOLUTIONS

Libertibus

Description :

### A stop service without home or fixed route schedule

In the agglomeration of Bourges, this service aims to serve people with disabilities during the progressive implementation of accessibility bus network. Libertibus is for people with disabilities ie persons traveling in wheelchairs and the visually impaired.

- They must be holders of a disability card of a rate greater than or equal to 80% and should be adhering to this service (free membership).
- Pricing is identical to that of bus
- The movements are ensured by reservation from Agglobus.
- Collaborative transportation



<https://www.agglobus.com/node/316>

Company :

## SMART CITY

### Smart City strategy

#### The optical fiber within the écoquartier Baudens: an efficient management in terms of connectivity to the site

The city of Bourges has developed sleeves for fiber optics systematically during the requalification of roads. She also close social landlords for housing can connect to it without difficulty.

- She will be present on the site and will allow its future residents, employees and visitors to benefit from a significant connectivity for leisure, professional activities, daily life etc.
- 100% connectivity (housing and housing equivalents connected to a web speed of at least 30 Mb / s)

#### Opportunity for residents to benefit from the 18 program developed by the General Council of Cher

- To receive a local service
- Development Wifi

## RESOURCES

### Water management

The rainwater is discussed in the context of environmental quality and sustainable development charter in the "environmental quality of the neighborhood."

#### Creating valleys

- After additional studies and simulations undertaken under the aegis of the developer an additional valley was created near the future building of Pôle Emploi.

#### Preservation of water resources in the 110 rental units

- A limitation of the discharge of stormwater
- Retention basins thunderstorms before infiltration buried underground

### Waste management

Special care is given to the sustainable management of sites (demolition, construction, management).

A first exemplary construction operation in waste management term "green construction"

## BIODIVERSITY

### Biodiversity and natural areas

#### A sober territory + accompanying changes

#### An interesting natural heritage showcase

- This 5-hectare site includes a tree heritage with interesting topics that have been the subject of a census and a health diagnosis.

#### Creating a new green space

- Garden Leeward appears as a green space walk privileges while allowing to cross joining the neighborhood and Avenue Gionne Ranchot the street. This

opening will be new because the site is surrounded by a wall, pedestrians should completely bypass to get from one point to another of the aforementioned streets.

### Outdoor spaces

- The treatment of external areas will be landscaped in its own project, integrating environmental and landscape quality objectives. It is important to ensure the diversification of species that will be up to local plants that consume little water, landscape enhancement of alternative management arrangements Rainwater (valleys). While being attentive to facilitate the management and maintenance of facilities (plantations consume little water, size limitation and the amount of green waste). This also includes work on street lighting and night environments.

### Creating a new educational green area

- A garden is created by children from primary school Carolus Beaumont.
- This garden will be both vegetable and flowers.
- Particular attention is paid to the efficient management of water.

## SOLUTIONS

[Jardin sous le vent](#)

## ENERGY/CLIMATE

### Climate adaptation, resources conservation, GHG emissions

- Implementation of bioclimatic principles in constructions (BBC Effinergie Promotelec Label and label)
- Production of REC (installation of solar thermal panels for hot water production)
- Support for new practices
- Alternative stormwater management
- Various green spaces (including a large green space of 1.8 hectares called the "Garden downwind")

### Accompanying measures to change

- monitoring of energy consumption
- eco awareness actions in the field of energy
- eco awareness actions in the field of waste

GC18 and the commitment of its partners to make this a neighborhood of this website development tool in line with the development of the rest of the city

### Energy mix

#### The use of ENR in the construction program of 110 rental units

- Installing 150 m2 of solar collectors distributed on the roofs of various buildings
- To ensure domestic hot water (DHW) collective

#### The use of ENR in the building's construction program Pôle Emploi / housing for ownership (island 3)

- Installation of solar collectors on the southern slopes of house roofs
- Can cover around 30% consumption in Hot Water

#### Since the project began thinking about the energy mix

Identification by the developer and the developer of the technical and financial inability to connect on the urban network of wood heating

- networks do not currently pass near the site
- too long in terms of connection time
- too expensive: financial cost generator to the financiers of the project

Identification by the developer and the developer of the non-relevance to install on the site an autonomous unit of wood heating

- the needs are not important enough to create such a facility
- requires to use part of the site for the equipment (processing unit and warehouse)
- fuel supply problem in a very residential area (neighborhood nuisance problems, danger, truck rotations etc.)
- better to use existing networks and existing sources (gas)

### Total electricity needs of the project area /year

Total electricity needs of the project area /year : 53,29 kWh

## BUILDINGS



## Buildings

The eco-neighborhood project includes a program to build 110 social housing under the Urban Renewal Plan of Bourges. The design of this housing also provides that the holder designated by the Office of Public Housing Cher, is particularly committed socially to respect the integration of 10% in hours of insertion. In the energy sector buildings must achieve Effinergie BBC label and get Promotelec certification.

The housing program is divided as follows:

- 110 social housing
- 40 needs housing
- 19 individual housing
- 220 collective housing

Percentage of rehabilitated housing: 3%

## Contest

### Building candidate in the category



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