

ANNEX

Serveis de renderització dels avantprojectes arquitectònics de remodelació de les mitgeres del concurs 2026 Barcelona capital mundial de l'arquitectura.

1. Objecte del contracte i característiques tècniques:

L'objecte del contracte és la realització de d'imatges renderitzades dels següents 6 avantprojectes de remodelació mitgeres (s'adjunten les propostes guanyadores del concurs que estan en fase de desenvolupament d'avantprojecte):

- Remodelació de conjunt de mitgeres a la Plaça Martina Castells, c/Hospital 128, 130, 132 i 138 (Ciutat Vella)
- Remodelació de la mitgera de Lluça a l'av. Madrid 161 cantonada amb c/ Lluça (Les Corts)
- Remodelació de la mitgera de l'Antiga Ctra. d'Horta al c/ Nàpols 103 i 101 (L'Eixample)
- Remodelació de dues mitgeres als Jardins Francesc Masclans, c/ Quetzal 5 i 7 (Sants Montjuïc)
- Remodelació de la mitgera de la placeta Charlot, c/ Pare Rodes 27 (Nou Barris)
- Remodelació de la mitgera del Parc de La Sagrera, al c/ Espronceda 315 (Sant Martí).

Serveis a realitzar per l'adjudicatari:

- Modelització de la nova façana en base als plànols de plantes, alçats i seccions dels avantprojectes aportats per l'Institut de Paisatge Urbà així com la definició de materials i textures. Aquesta documentació es lliurarà al licitador una vegada adjudicat el contracte.
- Lliurament de dues vistes generals (renders) del projecte i de l'arxiu base modelat de cada projecte.

S'entén per render, imatges virtuals que representi imatges futures, que tinguin textura, bon tractament de la llum, bona qualitat d'imatge i que siguin realistes.

Resolució i formats de cada imatge:

- Cada imatge es lliurarà en dues resolucions: 1.920 x 1080 píxels (16:9) i 1.920 x 1.400 píxels (4:3) amb color de 32 bits
- Format de les imatges: tiff o png

Vistes i punts de vistes:

Cadascuna de les imatges virtuals (renders) ha de correspondre a una vista o punt de vista diferent de les altres i seran definides conjuntament amb els tècnics de l'Institut del Paisatge Urbà.

Requeriments de privacitat:

- No s'admetran imatges virtuals en què les persones que hi apareixen puguin ser reconegudes o identificades individual

- Un cop entregades, l'ajuntament podrà fer difusió de les imatges pels canals que consideri, siguin aquests digitals, impresos o lones de gran format.

Aquest és un exemple de tipus de projecte i tipus d'imatge de proposta a realitzar:

Estat original

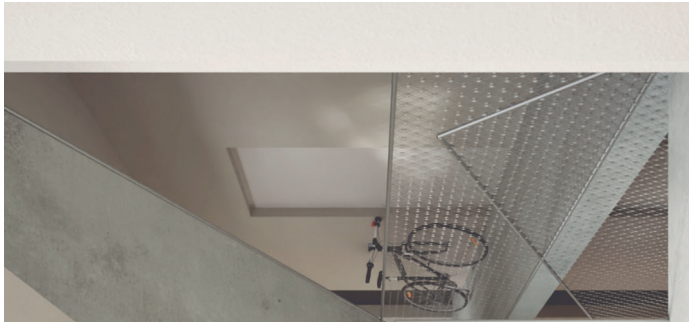


Imatge proposta



Annex

Propostes guanyadores del concurs objecte del contracte



HANGING GARDENS is a hybrid proposal that includes several interventions in Ctra. Antiga d'Horta at both Carrer de Nàpols buildings, involving a longitudinal balcony that intersects with its context in height. By promoting the use of shading and vertical gardening systems the energy efficiency of the buildings will be improved. A full energy reality will be reached close to the rooftops, providing funding and savings for the overall intervention.

Hanging gardens and collaborative care

Vertical gardens are useful structures that provide thermal insulation but at the same time require intensive maintenance. The proposal involves the use of vertical gardens that can be maintained as vertical greenhouses with a rotating schedule for different plants and small trees that can provide shade and protection. This can affect the entire structure attached to both balconies, creating a flexible and changing facade throughout the year.

The proposal consists in a hanging structure mainly attached to the building facade, which will be built with laminated wood (GLT) creating a scaffolding-like structure attached with a secondary system of steel bars and cables from which different balconies will be hung. This modular system will be based on a 200x200 meter grid and designed to be easily assembled. The aim of the proposal's clarity is to provide a universal system that can be adapted to different orientations allowing its scalability to other future locations.

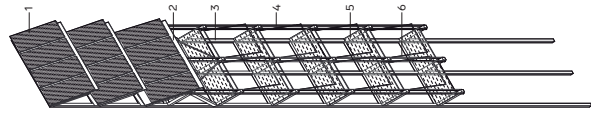
New opportunities

To improve the natural ventilation and lighting, several openings will be made along the facade to establish a direct relationship with the exterior, changing completely the configuration of the existing building. The presence of the *hanging gardens* will collaborate with the original ventilation system. A wide variety of elements such as exterior curtains, awnings, sliding windows and folding shades will be installed along the new structure to measure thoroughly the amount of sun needed in each season or during the day. New gradients of privacy will be introduced improving the living experiences of the existing apartments.

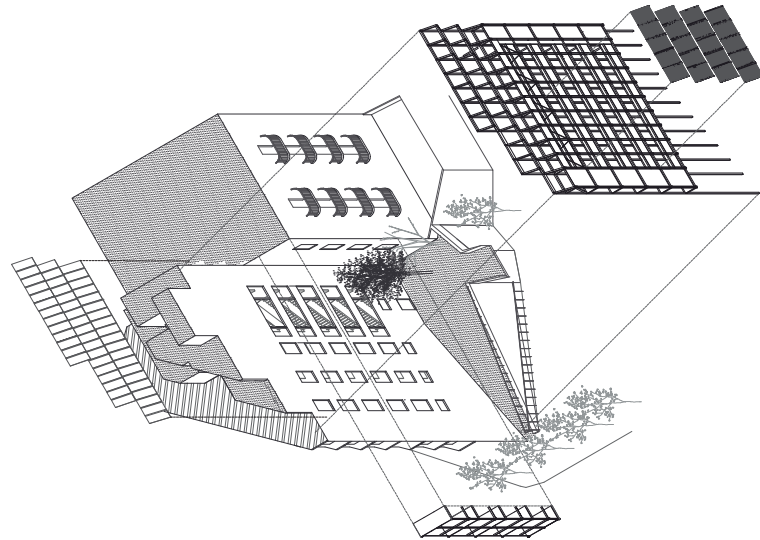
Solar garden

Trying to maximize its efficiency, a solar garden may be installed in the best oriented blind wall. Being both rooftops unavailable for solar purposes, there is a solar garden in Nàpols 103 blind wall. The solar garden will be a structure that will be hung from the building surmounts its neighbor in height. This remaining surface allows a lightweight structure to be hung supporting 56 solar panels (2.38x1.15m) that will provide a total of 9.543 kWh/year for the community. A 60% of the energy produced will be for self-consumption and the remaining will be sold to the general network providing collective financial benefits.

This structure is eligible for public funding and with a small investment from the neighbors (up to 43 apartments in both buildings) it can reduce its costs by a 30%. After a period of 6 years the investment can be recovered.



- Hanging Gardens structural module**
1. Solar panels
 2. Solar panel roofs
 3. GLT reinforcing structure
 4. Steel cable tensors
 5. Perforated flooring
 6. Shading structure



SOLAR FACILITY FEASIBILITY
50 solar panels installation for collective self-consumption designed for 45 neighbours.

Each neighbour may decide how to collaborate with the amount of power required for their home
The common facility will:

- Generate 48.372 kWh /year
- Saves 9.672 kg CO₂/year
- Provide 60% self-consumption
- Saves 9.406 €/year
- Sell 1.664 €/year to the network



Site Plan

Cost of the facility: 65.938 €
Investment by neighbour: 153.344 €
Amount covered by funding: 15.023 €
Profitability of the facility: 16.4%
Investment recovery: 6 years
Savings in 25 years: 166.773.000 €

Implemented strategies

Section 01
Scale 1:300

Section 02
Scale 1:300

Floorplan
Scale 1:200

intra muros

The notion of *intra muros*, or *within the walls*, recognizes the strategic role of the building in the development of the city, highlighting the possibility of reusing existing structures and the possibility of reusing existing structures and the possibility of reusing existing structures.

/ an urban opportunity

The transformation of a city block into a new urban opportunity is a process that involves the reuse of existing structures and the possibility of reusing existing structures and the possibility of reusing existing structures.

These questions are particularly relevant in the context of the city of Mexico, which sits at the heart of the world's most densely populated urban area. It is characterized by intense public space and the possibility of reusing existing structures and the possibility of reusing existing structures.

Siting in the heart of the city, the building is situated in the heart of the city, which is characterized by intense public space and the possibility of reusing existing structures and the possibility of reusing existing structures.

/ a climatic refuge and biodiversity shelter

Based on the energy efficiency of the existing building, the building is designed to be a climatic refuge and biodiversity shelter, which is characterized by intense public space and the possibility of reusing existing structures and the possibility of reusing existing structures.

/ a living envelope

The proposal adds a secondary skin to the existing walls, improving the thermal performance, ensuring waterproofing and creating a living envelope, which is characterized by intense public space and the possibility of reusing existing structures and the possibility of reusing existing structures.

This brick is designed to become a refuge for different species and to promote a vertical biodiversity insertion. By repeating the perforated brick pattern, the building is designed to be a climatic refuge and biodiversity shelter, which is characterized by intense public space and the possibility of reusing existing structures and the possibility of reusing existing structures.

/ a traceable past

The existing proposal aims to use the wall as a traceable past, which is characterized by intense public space and the possibility of reusing existing structures and the possibility of reusing existing structures.

The proposal becomes a living envelope, which is characterized by intense public space and the possibility of reusing existing structures and the possibility of reusing existing structures.

urban elements

1 - new skin

2 - brickwork / ventilated cavity

3 - fine cavity barrier

4 - externally braced walls

5 - insulated blind to form new

6 - insulated blind and cavity

7 - dry cavity and structure

8 - steel rod to support

9 - rainwater collection

10 - concrete foundation

type A

type B

type C

type D

type E

type F

type G

type H

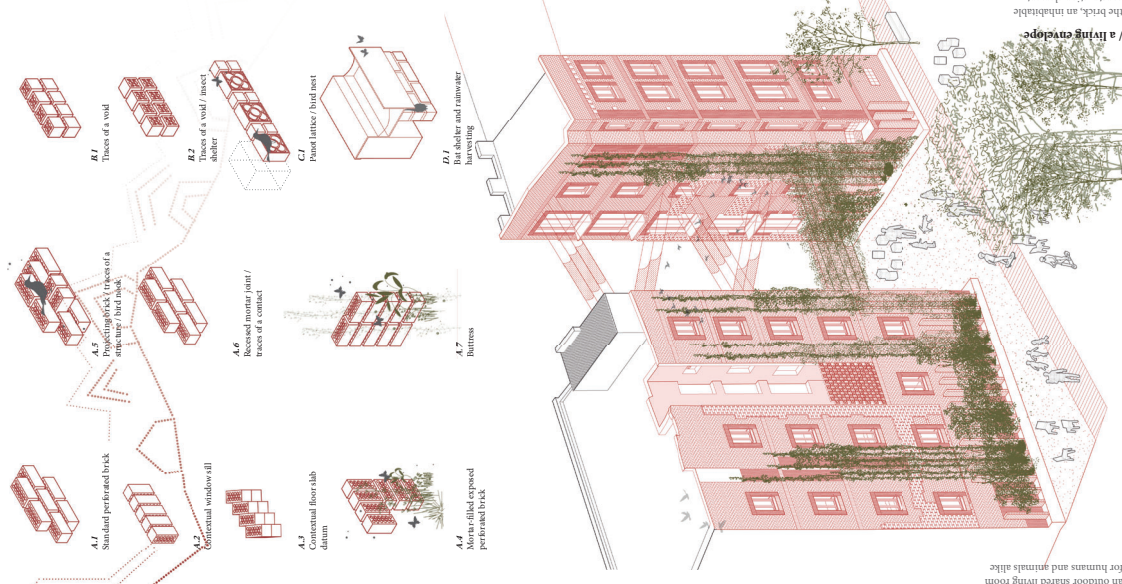
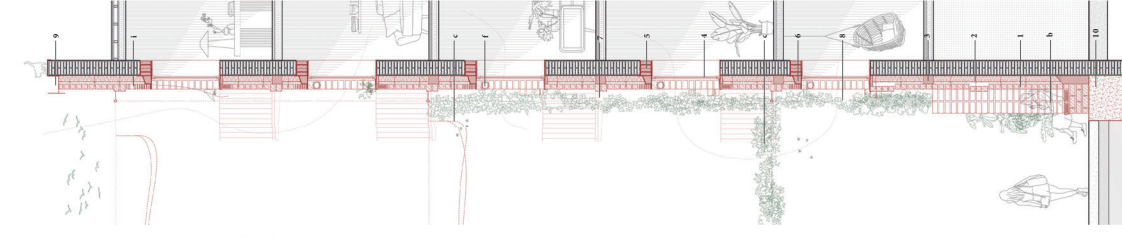
type I

type J

type K

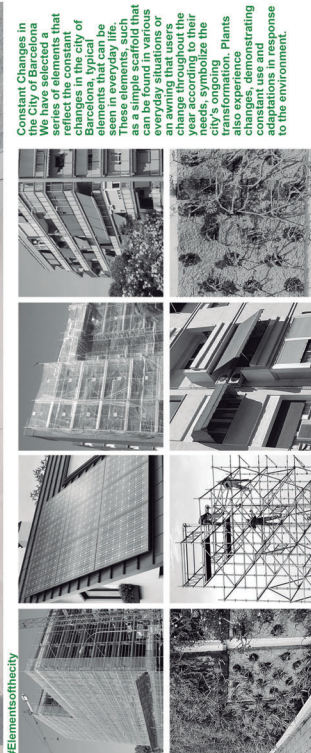
type L

type M

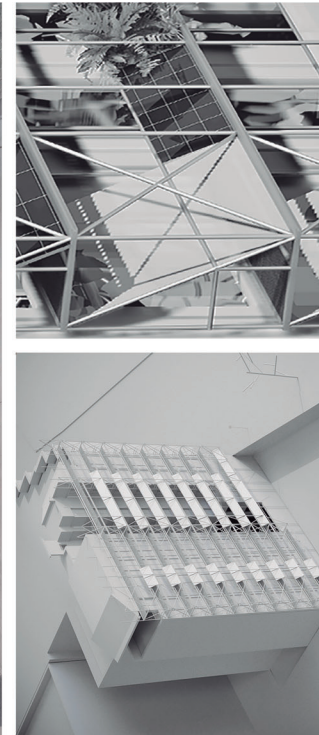




#Elementsofthecity



#Urbanbiodiversity



#UrbanVerticalForest

We propose a new communal façade that incorporates an "urban vertical forest." This concept aims to create continuity in green areas, reduce pollution, promote biodiversity, and increase public space, thereby fostering a healthier city. Additionally, it will serve as an element of social cohesion. The façade will integrate elements of the urban environment and Barcelona's biodiversity, recognizing the building's context in an area of constant change.

We have decided to reinterpret scaffolding as a symbol of change, creating a structure that simulates a constantly evolving façade. This will include the use of white tones characteristic of the new metallic constructions being developed. The façade will be divided into two parts:

1. Expansion: This section utilizes the building's structure to create openings, allowing for an expansion of apartments in areas such as bedrooms and social spaces without affecting the main structure. Users can adapt this over time, using solar panels or green panels according to their preferences. The dimensions are designed to allow flexible user intervention.
2. Public Access Urban Vertical Forest: Located in the center of the façade, this forest is accessible to all building residents and serves as a continuation of the city, not turning its back on the urban environment. It is accessed via a staircase from a ground-level patio, providing a visual barrier for clothes drying on balconies and creating a double façade for both the interior and exterior of the building.

#Module 2

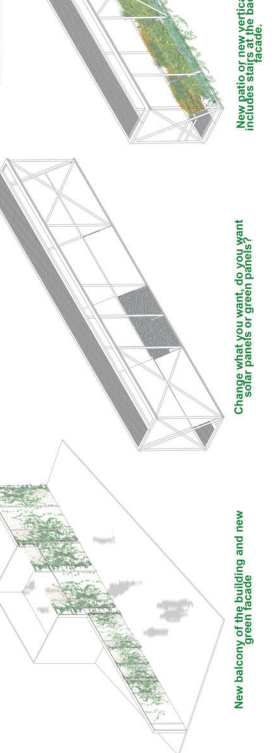
Vertical Forest - Double interior and exterior facades

#Module 1 - Configurable -

Change what you want, do you want solar panels or green panels?

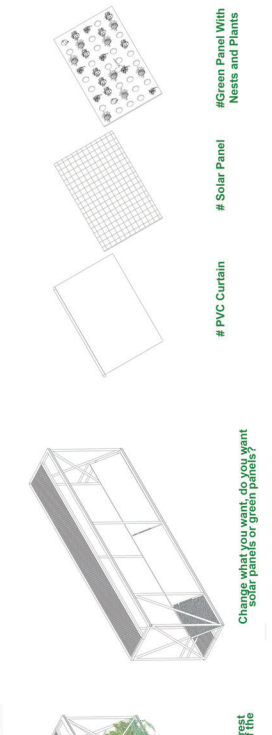
#Ground floor + double square

New balcony of the building and new green facade

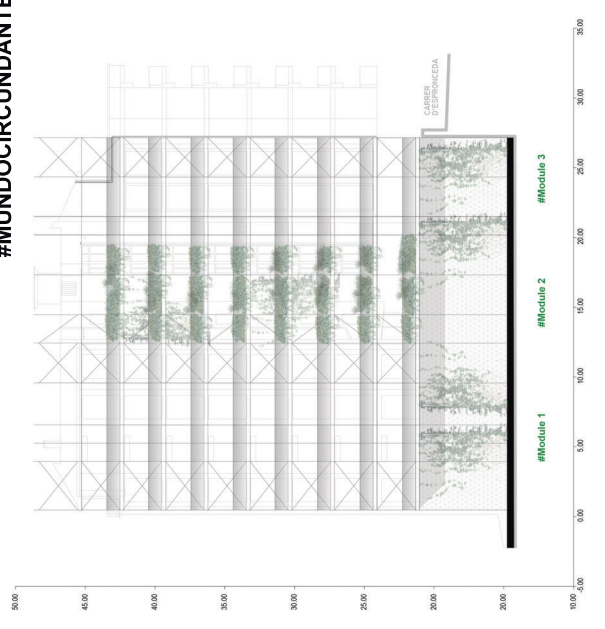


New balcony of the building and new green facade

#Elements of modules



Change what you want, do you want solar panels or green panels?



#New Demolitions

#Original Facade

#Module 1

#Module 2

#Module 3

#Ground Floor + double Square

#New Demolitions

#Original Facade

#Module 1

#Module 2

#Module 3

#Ground Floor + double Square

#New Demolitions

#Original Facade

#Module 1

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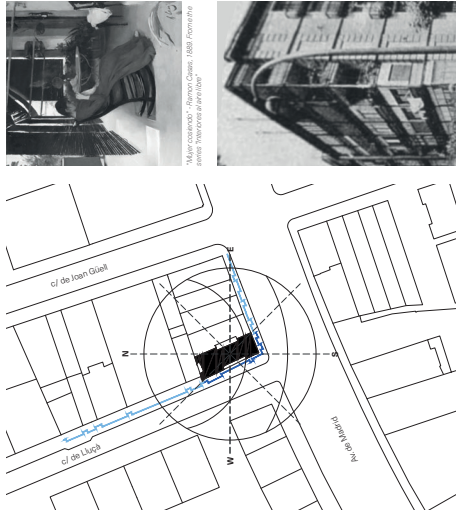
#New Demolitions

#Original Facade

#Module 1

<

LIVING THRESHOLD

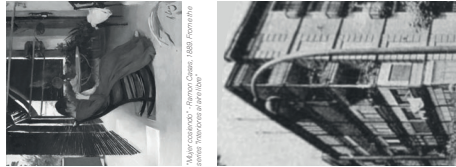


CONCEPT

The proposal focus on giving continuity to the urban system surrounding it, eliminating the urban consideration of the building as a barrier and creating **new outdoor domestic spaces** that encourage new ways of inhabiting the building, both inside and outside the immediate environment.

The aim is to go beyond the basic improvement of the thermal conditions of the building and create **new space** through openings that can be transformed into **different forms**, like **windows, balconies, or terraces**, facade, keeping in mind the maximum permitted distance of one meter.

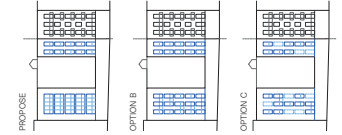
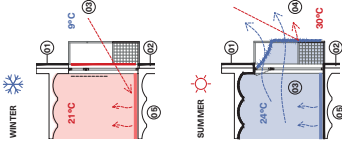
The proposal seeks to **recover the use of systems and materials characteristic of Barcelona**. The new facade is a **transformation** of the traditional composition of the interior facades of the building, using materials and systems, such as ceramic, wood, or metal is also chosen.



Intervention of the main facade with the gallery
Placing balcony on Barcelona street of 1973

PASSIVE STRATEGIES

- 01 Reduction of the form factor.**
Closed perimeter, compact building, reducing the surface area exposed to the sun.
- 02 Low transmittance.** Exterior walls made of high-performance wood fiber thermal insulation, reducing solar radiation and heat gain.
- 03 Allow winter solar gain.**
Allows winter solar gain.
- 04 Massive pavement to increase thermal inertia.**
Larger surface area to dissipate heat.
- 01 Increase of the form factor.**
Open perimeter, compact building, increasing the surface area exposed to the sun.
- 02 High transmittance.** Exterior walls made of high-performance wood fiber thermal insulation, increasing solar radiation and heat gain.
- 03 Closed insulation.** Exchange with the exterior environment, reducing solar radiation and heat gain.
- 04 Closed horizontal solar protection.** Can filter and Barcelona thermal inertia to increase thermal inertia.

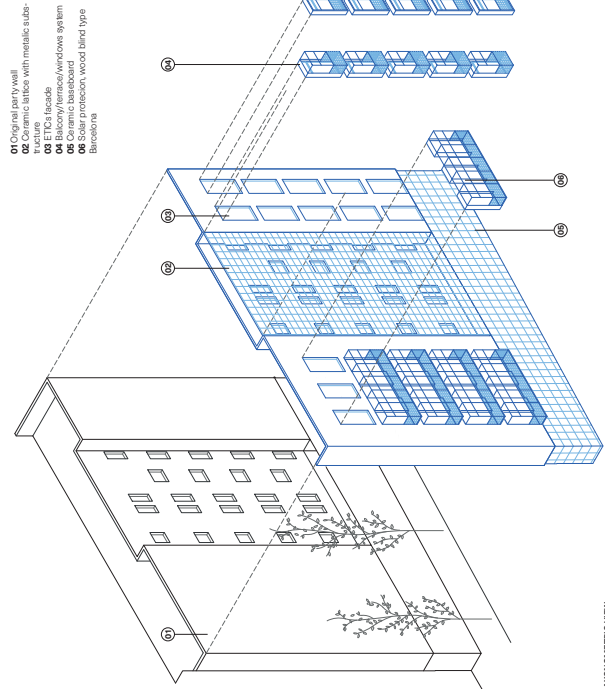


INTERVENTION STRATEGIES

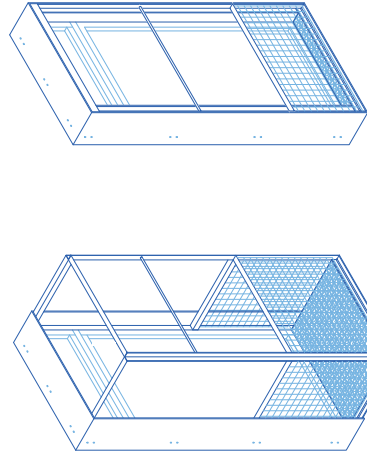
The proposal adapts to the morphology of the existing environment. The building is integrated into the urban fabric with the main facades, **same proportion of the original openings**. We propose a **functional and dynamic approach** to the building's facade as a whole, using the same structural system, **adapting to the needs of the user**, with the quality and beauty of the existing one.

Therefore the intervention system becomes a **variable and flexible system**, able to adapt to the functional needs of each user. In addition, it allows a **phased development** of the building, ensuring its **availability** at the time of execution.

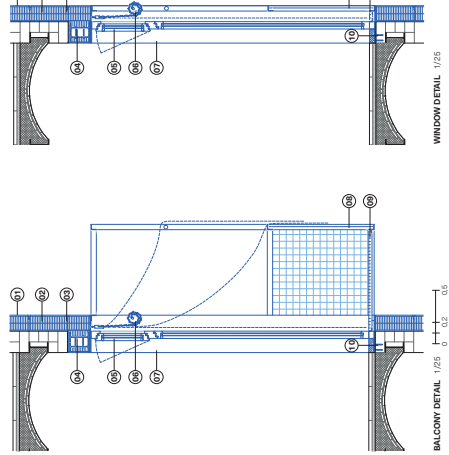
- 01 Original party wall**
- 02 Ceramic lattice with metallic substructure**
- 03 ETCS facade**
- 04 ETCS facade/windows system**
- 05 Ceramic baseboard**
- 06 Solar protection wood blind type Barcelona**



AXONOMETRIC VIEW



AXONOMETRIC VIEW - BALCONY 1/25



WINDOW DETAIL 1/25

INDUSTRIALIZATION

The knowledge of the proposal is based on the values of the existing building, a theoretical movement that seeks to replace, from the design, the possibilities of the building. The aim is to obtain the greatest number of synergies between the elements and the building, creating a **new type of building** that is **functional, dynamic, and sustainable**, with a **low environmental impact** and **boost economic value** of each component. The proposal is a **phased development** of the building, ensuring its **availability** at the time of execution.

environmental impact

An industrialized system based on steel, a material capable of being dismantled, allows the building to be adapted to the needs of the user, **reducing the material demand**. The design of the building is a **transformation** of the traditional composition of the interior facades of the building, using materials and systems, such as ceramic, wood, or metal is also chosen.

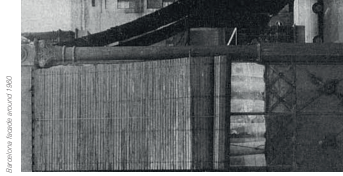
- 01 Facade cladding with ETCS panels.**
Hardening of the surface by a layer of plaster, creating a **functional and dynamic approach** to the building's facade as a whole, using the same structural system, **adapting to the needs of the user**, with the quality and beauty of the existing one.
- 02 ETCS facade**
ETCS facade, creating a **functional and dynamic approach** to the building's facade as a whole, using the same structural system, **adapting to the needs of the user**, with the quality and beauty of the existing one.
- 03 Anchoring, type BAUMIT S 135 or similar.**
Anchoring, type BAUMIT S 135 or similar, creating a **functional and dynamic approach** to the building's facade as a whole, using the same structural system, **adapting to the needs of the user**, with the quality and beauty of the existing one.
- 04 Shoring of the existing wall using double PNI 80 profile.**
Shoring of the existing wall using double PNI 80 profile, creating a **functional and dynamic approach** to the building's facade as a whole, using the same structural system, **adapting to the needs of the user**, with the quality and beauty of the existing one.
- 05 Tilt-and-turn wooden carpentry with upper opening air type HENET or similar.**
Tilt-and-turn wooden carpentry with upper opening air type HENET or similar, creating a **functional and dynamic approach** to the building's facade as a whole, using the same structural system, **adapting to the needs of the user**, with the quality and beauty of the existing one.
- 06 Wooden slatted shutter type PERISIANA BARCELONA or similar.**
Wooden slatted shutter type PERISIANA BARCELONA or similar, creating a **functional and dynamic approach** to the building's facade as a whole, using the same structural system, **adapting to the needs of the user**, with the quality and beauty of the existing one.
- 07 Galvanized steel hangings with L-shaped plate, with interior anodized.**
Galvanized steel hangings with L-shaped plate, with interior anodized, creating a **functional and dynamic approach** to the building's facade as a whole, using the same structural system, **adapting to the needs of the user**, with the quality and beauty of the existing one.
- 08 Galvanized steel metal grating paving plates.**
Galvanized steel metal grating paving plates, creating a **functional and dynamic approach** to the building's facade as a whole, using the same structural system, **adapting to the needs of the user**, with the quality and beauty of the existing one.
- 09 Anchoring with M10 chemical anchor.**
Anchoring with M10 chemical anchor, creating a **functional and dynamic approach** to the building's facade as a whole, using the same structural system, **adapting to the needs of the user**, with the quality and beauty of the existing one.



DWELLING

The typology, originally articulated around the building, is a **transformation** of the house (living room and bedroom), opening to the exterior space and generating a **new urban front** that becomes city facade.

The balcony becomes a **living space** that acts as a **transition space** between the domestic and public space. In winter, the balcony acts as a **transition space** between the domestic and public space. In summer, it becomes a space in constant shade that favors the cross ventilation of the house.



Decorative facade around 1960

MATERIALITY

The new facade is formed using the **elements and proportions of the neighborhood**, such as ceramic, wood, or metal. The new facade of the courtyard is presented as a **lattice** that allows a **phased development** of the building, ensuring its **availability** at the time of execution.

BUDGET

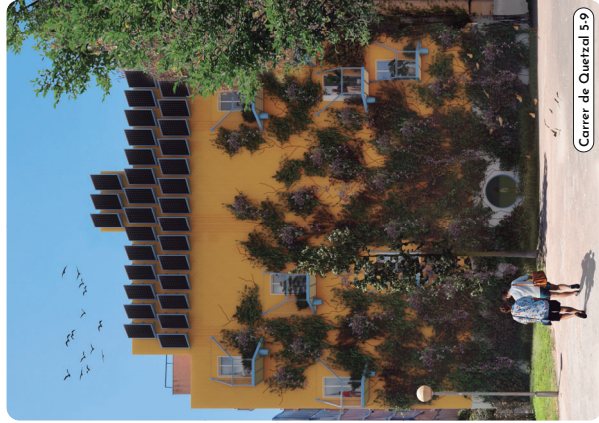
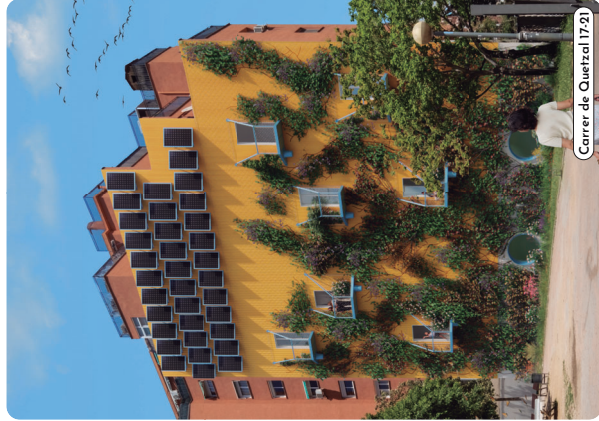
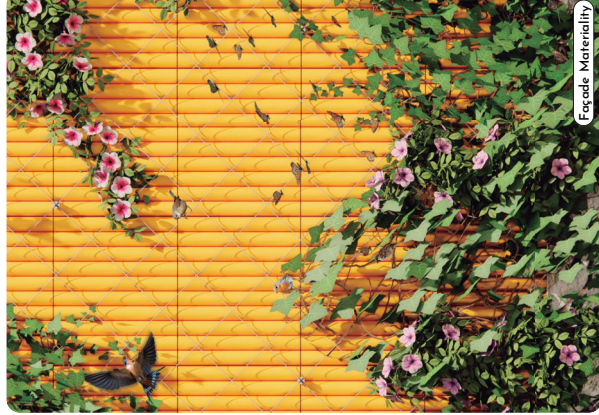
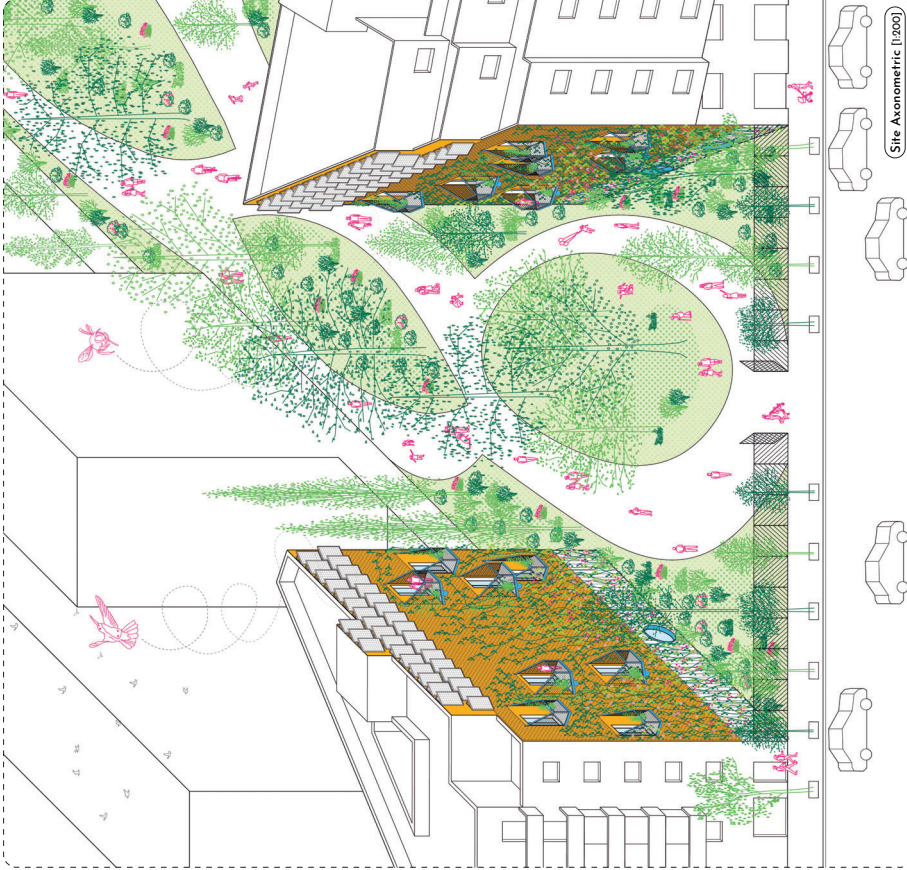
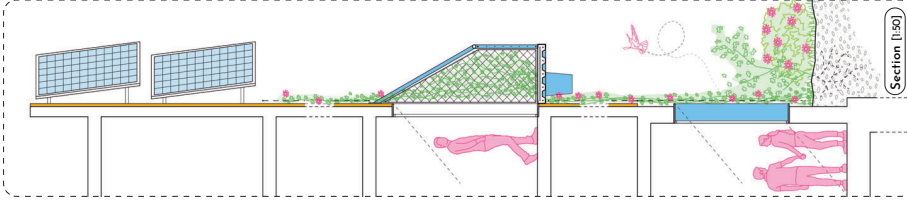
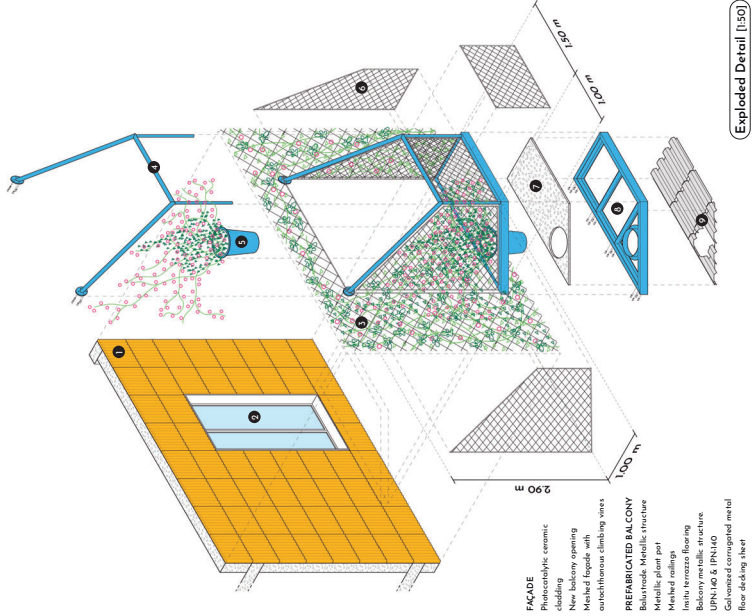
Estimate budget, including new balcony/terrace/windows system, lattice, new openings and ETCS facade: 220000 €



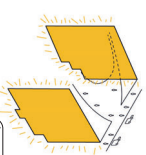
Contemporary ceramic lattice

THE GOLDEN GATEWAY

JARDI DE FRANCESC MASCLANS | GÍR VÉS Sant's Montjuïc · La Bordeta [Barcelona]

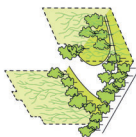


Identity



Golden Gateway Icon

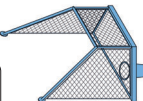
The proposal extends the existing exposed brickwork into a vibrant, sunny golden structure. The striking yellow facade, combined with the greenery of the climbing vines, creates a distinctive gateway to the garden, creating a visually appealing icon.



Natural Threshold

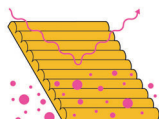
The proposal extends the garden's natural aesthetic across the facade, creating a seamless transition between the building and the surrounding environment. These natural elements will provide the building with a dynamic, ever-changing appearance.

Materiality



Prefabrication

Balconies will be prefabricated off-site, ensuring high-quality construction and ease of installation. These pre-made units, constructed from simple metallic components, will be assembled on-site, streamlining the placement of the balconies and collaborating with input from the residents.



CS Sustainability and Durability

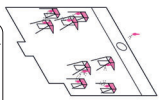
The facade's photocatalytic features, chosen for its durability and self-cleaning properties, enable the facade to self-clean, minimizing upkeep. This choice also pays homage to Barcelona's architectural heritage, as the facade's design is inspired by the city's iconic Sagrada Família, with a contemporary innovation.



CS Promotion of Biodiversity

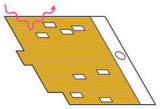
The proposal seeks to enhance biodiversity by increasing ground-level greenery. The vertical segregated walkways, housing local birds, bats, and insects, foster a rich and diverse ecosystem.

Facade Concept



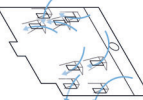
C1 New Facade Composition

The facade is composed of multiple openings, creating a dynamic and ever-changing appearance. These openings not only give the building a modern aesthetic but also facilitate interaction between neighbors.



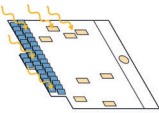
C3 Constructive Adequacy and Thermal Behaviour

The blind walls clad with photocatalytic ceramic tiles, which offer excellent thermal properties, improve the wall's thermal mass, retaining increased surface area and reflective nature help to deflect heat, keeping the building cooler.



S1 New Openings

Enhancing the habitability of dwellings, the facade's new openings offer natural cross-ventilation, ample light, and a connection to the outdoors for residents. At ground level, large windows strengthen the connection between the public park and the private/commercial spaces within the building.



S3 Integration of Energy Production

The facade's solar panels, equipped with solar panels, generate electricity as these apartments already have solar panels. The facade's design does not require additional balconies. Each building's solar panels are oriented differently to maximize energy production. The facade's design, in the balconies, will harness solar radiation to heat the interior.



S4 Integration of Vertical Gardening

The facade will be partially covered with climbing plants, which will help to reduce the heat island effect and improve air quality. The dynamic climbing plants will create a dynamic facade that evolves with the changing seasons.