

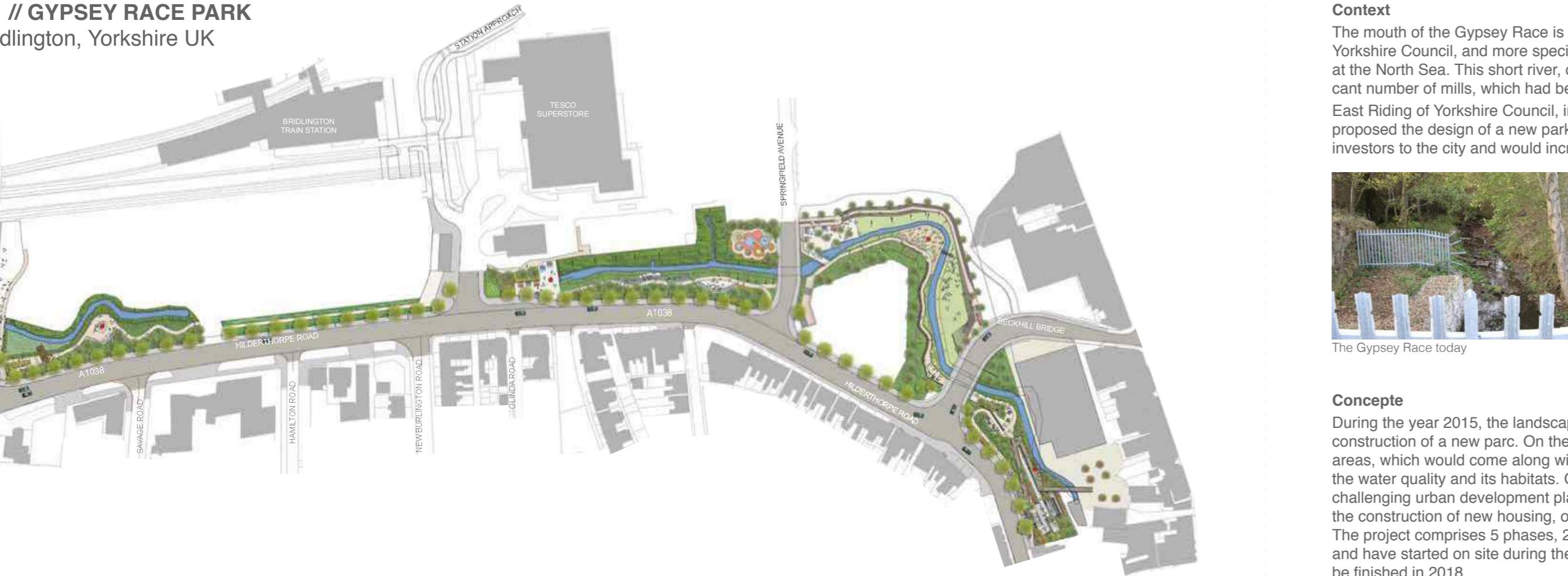
Pedro Muñoz

**architecture & landscape**  
portfolio of works      2018

## INDEX

## 1 // PUBLIC REALM

## 1.1 // GYPSEY RACE PARK Bridlington, Yorkshire UK



### Context

The mouth of the Gypsey Race is located in the city of Bridlington, in East Riding of Yorkshire Council, and more specifically, running across the old city before it arrives at the North Sea.

This short river, of only 45km, has been partially hidden by a significant number of mills, which had been in use during the 19th and 20th centuries.

East Riding of Yorkshire Council,

in a joint venture with Bridlington Renaissance,

proposed the design of a new park along the river,

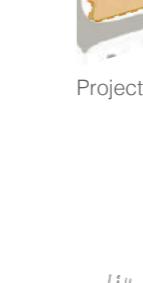
which would certainly attract new investors to the city and would increase its development in the next years.



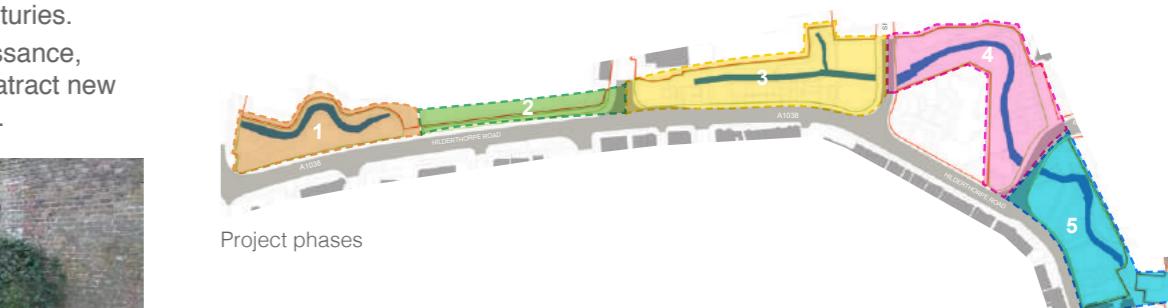
### Concepte

During the year 2015, the landscape team at Sweco designed a Masterplan for the construction of a new parc. On the one hand, the new plan would provide new green areas, which would come along with new public realm areas and the restoration of the water quality and its habitats. On the other, the new parc forms part of a far more challenging urban development plan for Bridlington, which would attract investors for the construction of new housing, offices and leisure areas.

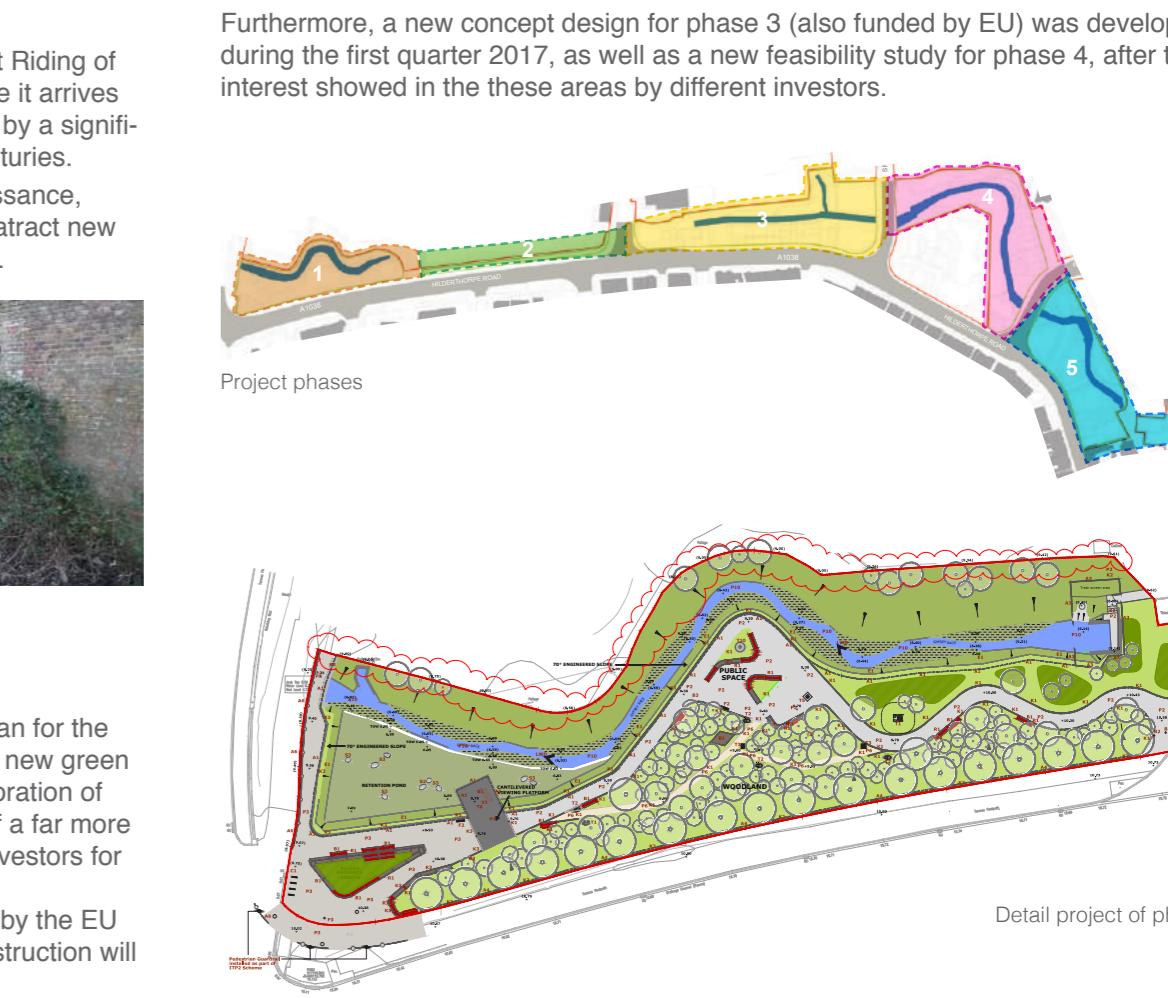
The project comprises 5 phases, 2 of which have been financially funded by the EU and have started on site during the second quarter 2017, and whose construction will be finished in 2018.



Furthermore, a new concept design for phase 3 (also funded by EU) was developed during the first quarter 2017, as well as a new feasibility study for phase 4, after the interest showed in these areas by different investors.



Project phases



Detail project of phase 1



Visualisation 1 - proposal for phase 1



Visualisation 2 - proposal for phase 3



Feasibility study of phase 4, after the interest showed by investors



Visualisation 3 - proposal for phase 5

## 1.2 // CUNINGAR LOOP Glasgow, Scotland UK



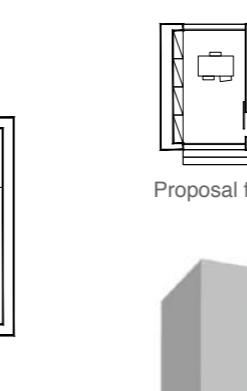
### Context

Cuningar Loop is a meander of the river Clyde, located at the East End of Glasgow, next to estates built during the Commonwealth Games, which has still not suffered the urban pressure.

### Concept

In 2016, and after Clyde Gateway's commission, Sweco started the design of a new leisure parc located within this meander.

The new project proposes a significant improvement of the river woodland, as well as a number of new facility buildings and areas, where visitors will be informed about the available activities and facilities, such as the Top Tree Walk and the trampolins area, as well as about the natural habitats and spaces that exist in this particular location of the city.



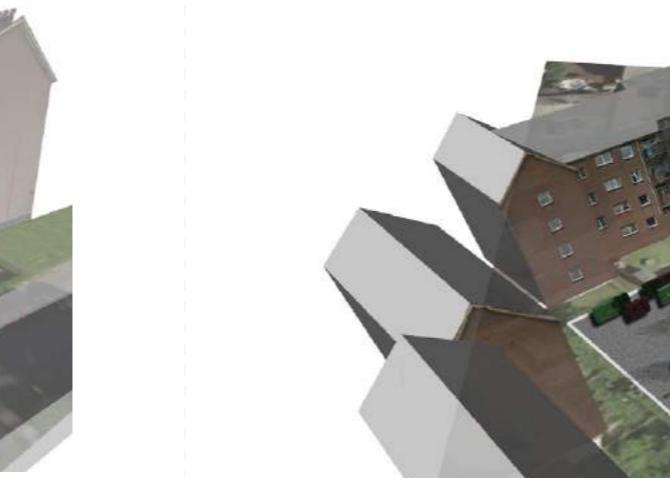
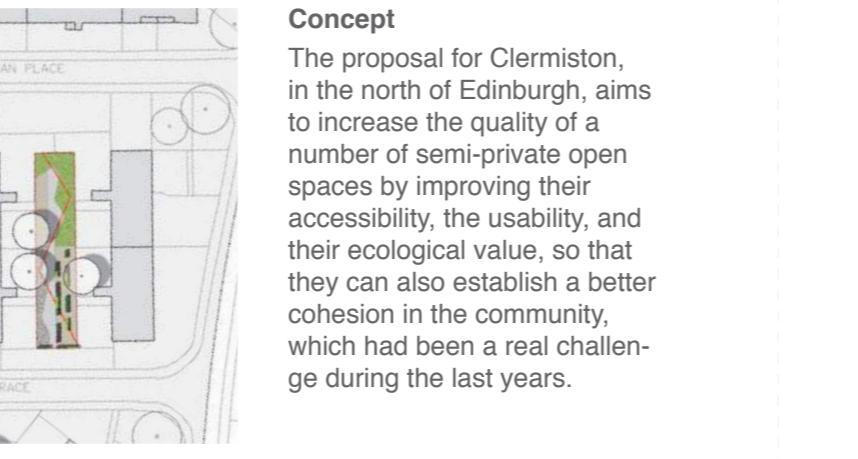
## 1.3 // CLERMISTON BACK COURTS

Edinburgh, Scotland UK



### Context

The Landscape Masterplan for Clermiston is part of the Neighbourhood Environmental Projects (NEP), a Framework proposed by the City of Edinburgh Council in order to make urban improvements to different deprived areas within the City of Edinburgh. Sweco forms part of this Framework since 2015.



### Concept

The proposal for Clermiston, in the north of Edinburgh, aims to increase the quality of a number of semi-private open spaces by improving their accessibility, the usability, and their ecological value, so that they can also establish a better cohesion in the community, which had been a real challenge during the last years.



## 1.4 // ARBORETUM PLACE

Edinburgh, Scotland UK



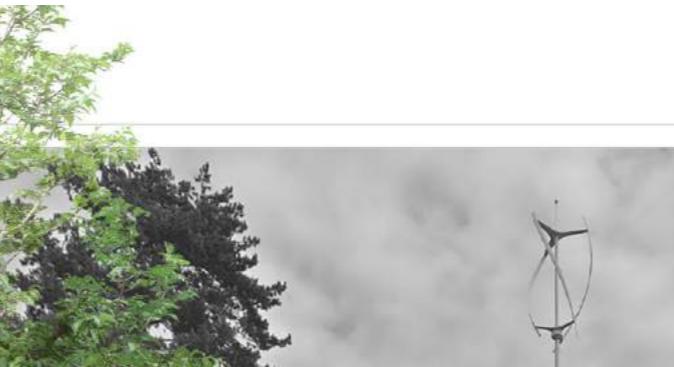
Concept Proposal



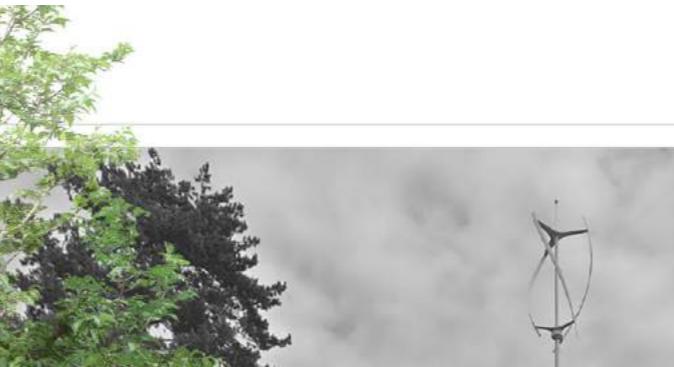
Current view of the existing square



Bird's eye visualisation of the proposal



Visualisation of the proposed design



Visualisation of the proposed design

### Arboretum Place

The project for the re-design of this square, which is located to the north of the old city of Edinburgh, is to be built during the year 2018. This proposal forms part of the deal that already exists between Sweco and the City of Edinburgh Council since 2016, which was agreed in order to handle a significant number of projects for the enhancement of the local landscape and the urban mobility within the next years.

### Context

Due to its location, giving access to the Royal Botanic Garden Edinburgh, it is the place where a great number of visitors of all ages meet every weekend, just before they get into the gardens.

Albeit the ease for many people to drive their cars to the square, there is an urgent need to increase the pedestrian area in order to guarantee the wellbeing and the safety of the all the visitors, whether they arrive at the place by car or other means.

### Concept

The proposed design gives the squares a completely different aspect by making a pedestrian area of the existing car park. Although it keeps the central road, it is slightly narrowed along this area, in order to reduce the speed of the vehicles across it.

Furthermore, the construction of four insitu concrete benches efficiently separate pedestrian and wheeled areas, helping to increase the safety at the square.

## 1.5 // SURFACE WATER MANAGEMENT PLAN

Glasgow, Scotland UK



According to the flooding problems happening across many urban areas of the city of Glasgow, Sweco was commissioned by the City Council a Surface Water Management Plan that would eventually alleviate the effects produced during intensive rainfall episodes.



In this area of the East End of Glasgow, a new park has been proposed, which will provide, on the one hand, better pedestrian and cycle links, as well as good quality open spaces for the community, and on the other, a number of ponds and basins that can retain the water in the event of a storm.



## 2 // ARCHITECTURE

## 2.1 // INTERPRETIVE CENTRE IN CASTRO DE BORNEIRO

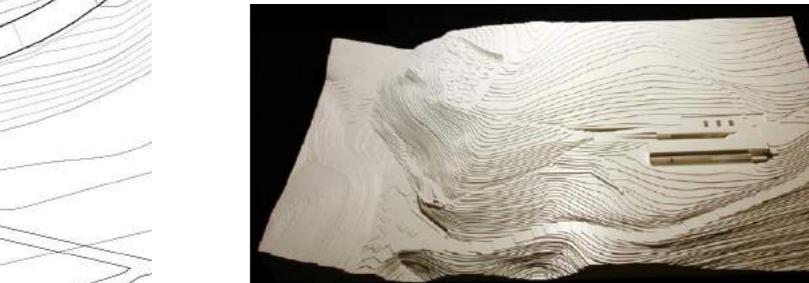
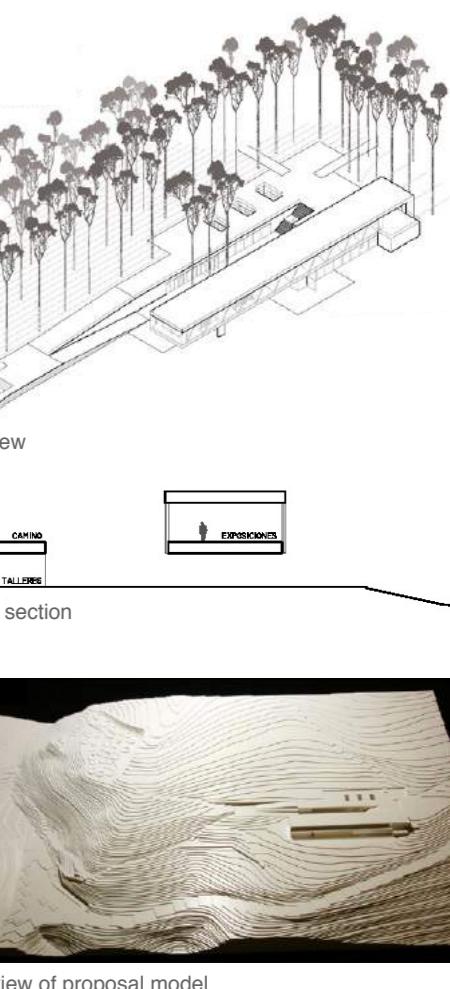
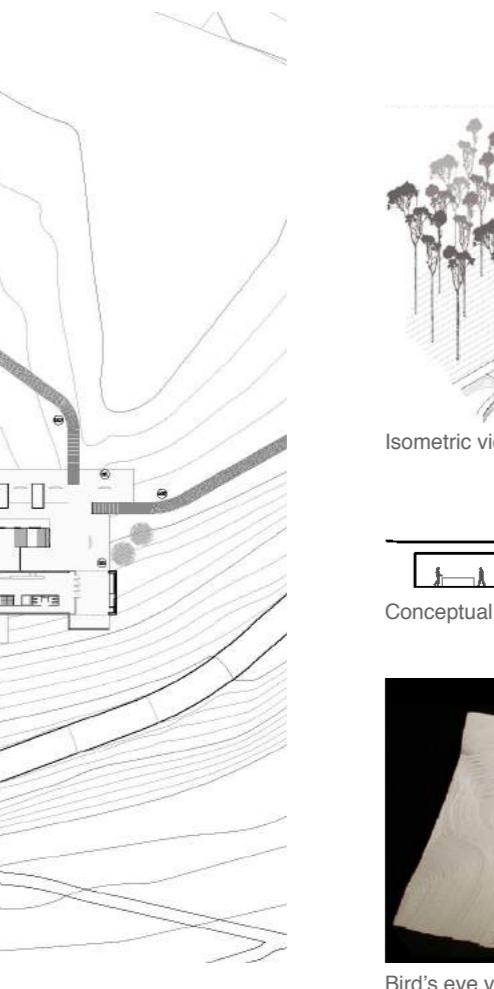
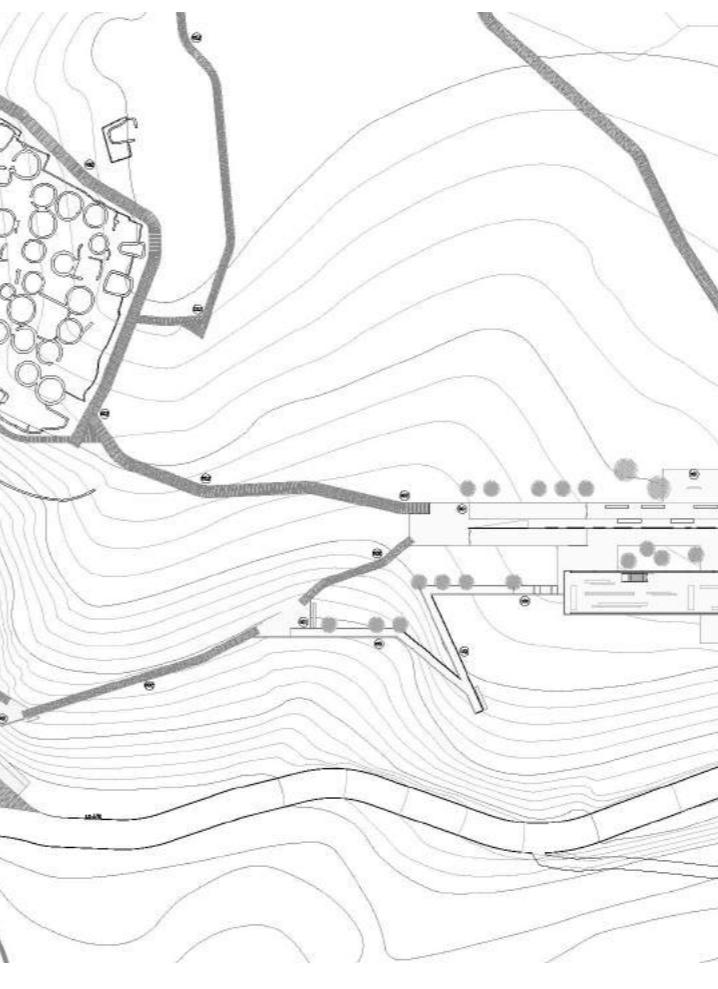
Castro de Borneiro, Cabana de Bergantiños - A Coruña, Spain

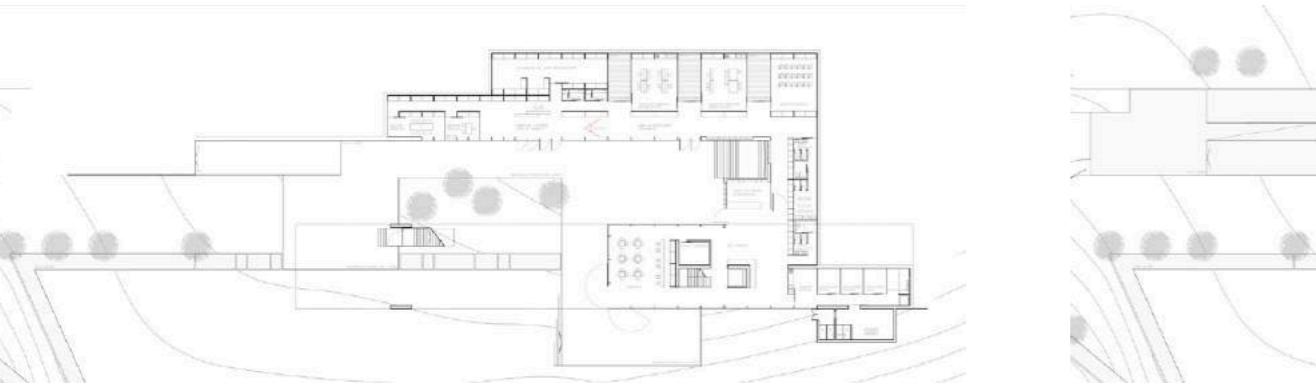


Archaeological site 'Castro de Borneiro'



Rural village of Borneiro





Level -1 / Research, administration, and leisure facilities



## ualisation of Level -1

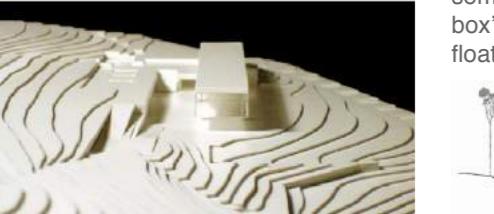
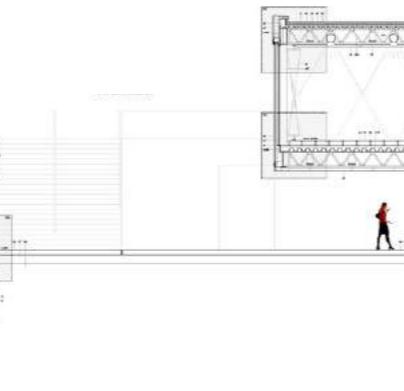
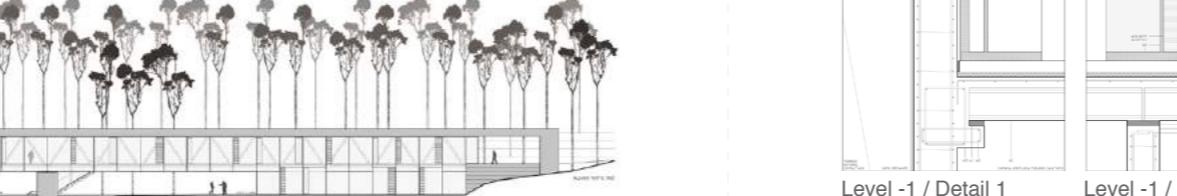


Figure 1. Northeast view of proposal model

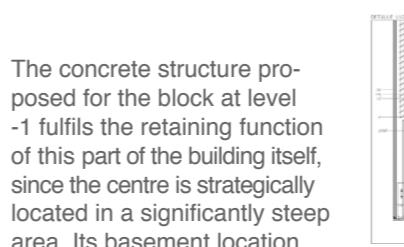
ography of the archaeological site de Borneiro', which was strategically on the edge of a flatland, right in front of a valley, provided the opportunity to put a design, in which both architecture and landscape would play highly important roles. It is the nature of this flat area that the design would make the most of, in order to locate private areas such as research and administration, in a tiered block, to later design a 'see-through' block that contains the exhibition use and virtually open up the landscape.



## **cross section**



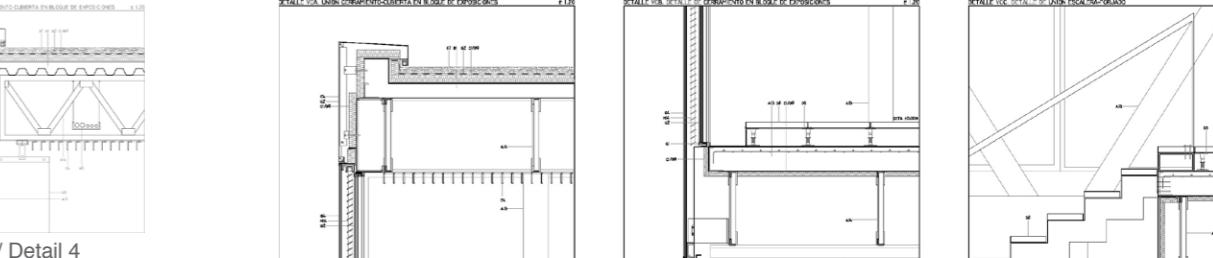
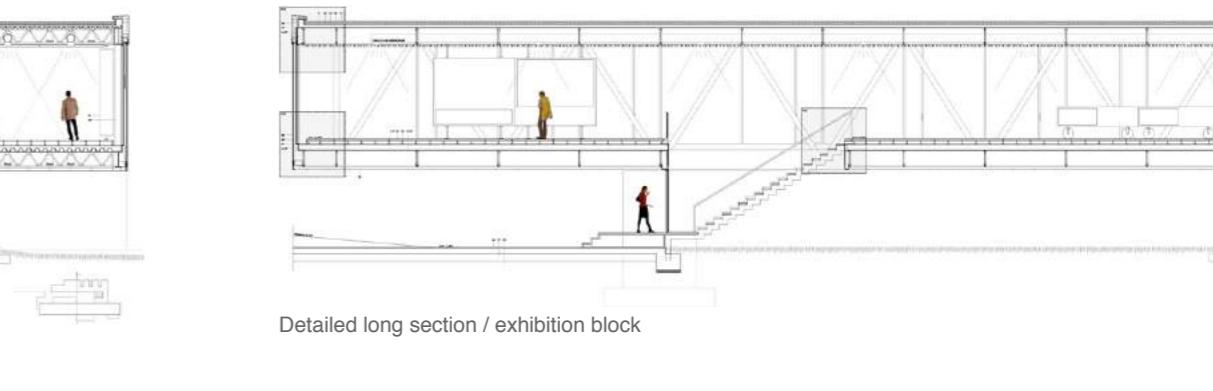
Level -1 /



provides the priva



for such a research activity.



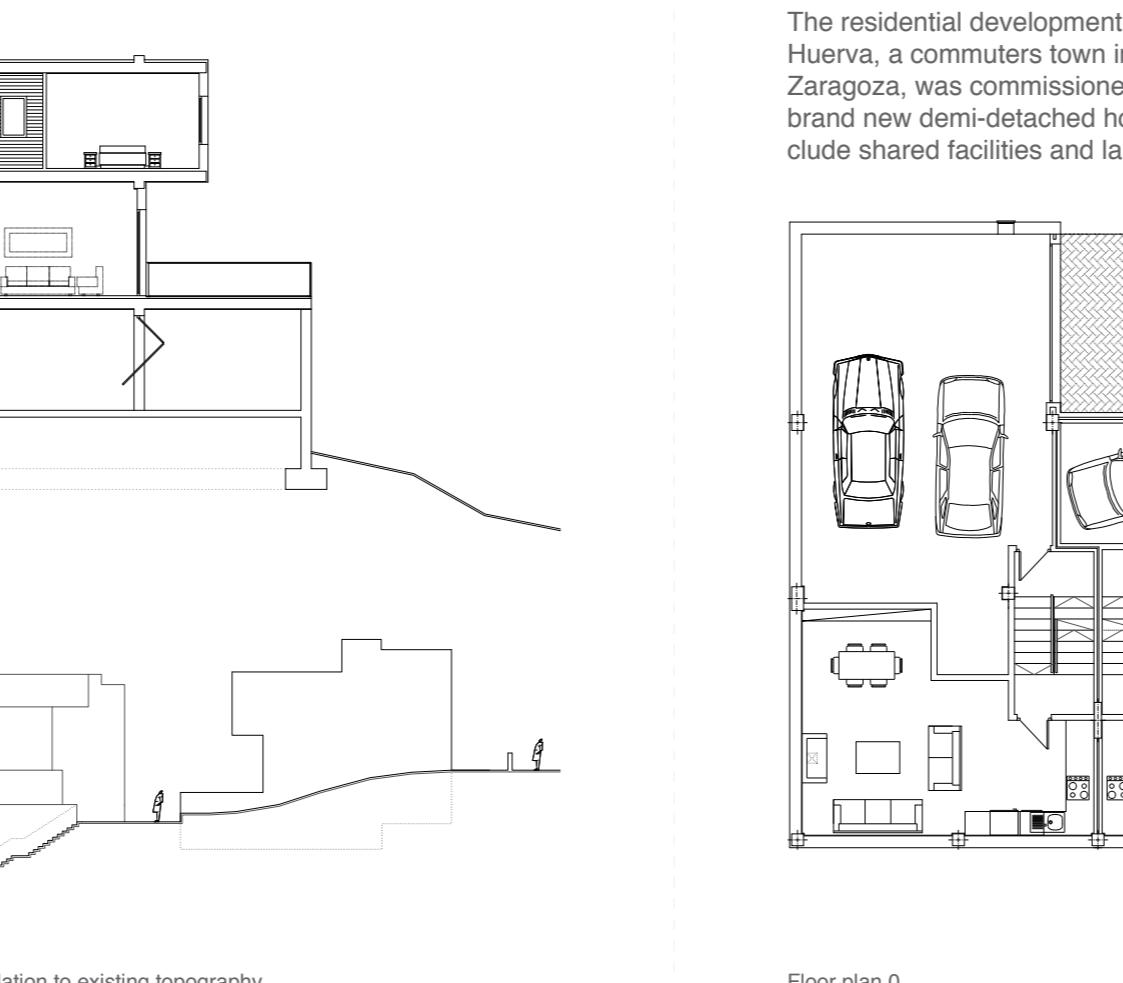
CERRAJERIA CIELOSTA

## 2.2 // SEMI-DETACHED HOUSES IN CUARTE

Cuarte de Huerva - Zaragoza, Spain



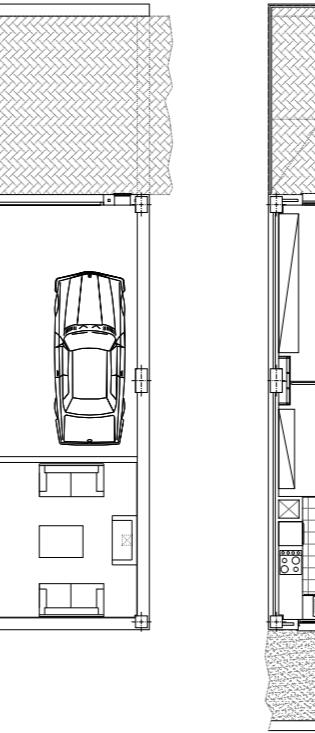
Development overall plan



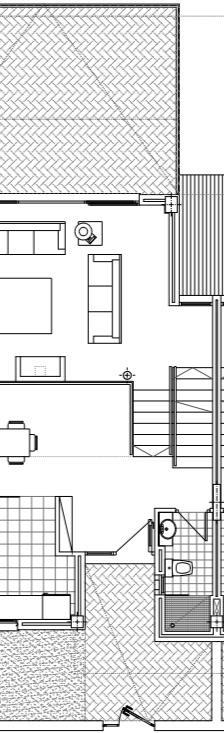
The residential development, located in Cuarte de Huerva, a commuters town in the surroundings of Zaragoza, was commissioned to accommodate six brand new demi-detached houses, which would include shared facilities and landscaped spaces, that

would bring the new estate to a high standard. Not only give the stepped structures, which conveniently adjust to the existing steep terrain, an extra architectural interest to the residential dwellings, but also they help to split pedestrian and wheeled

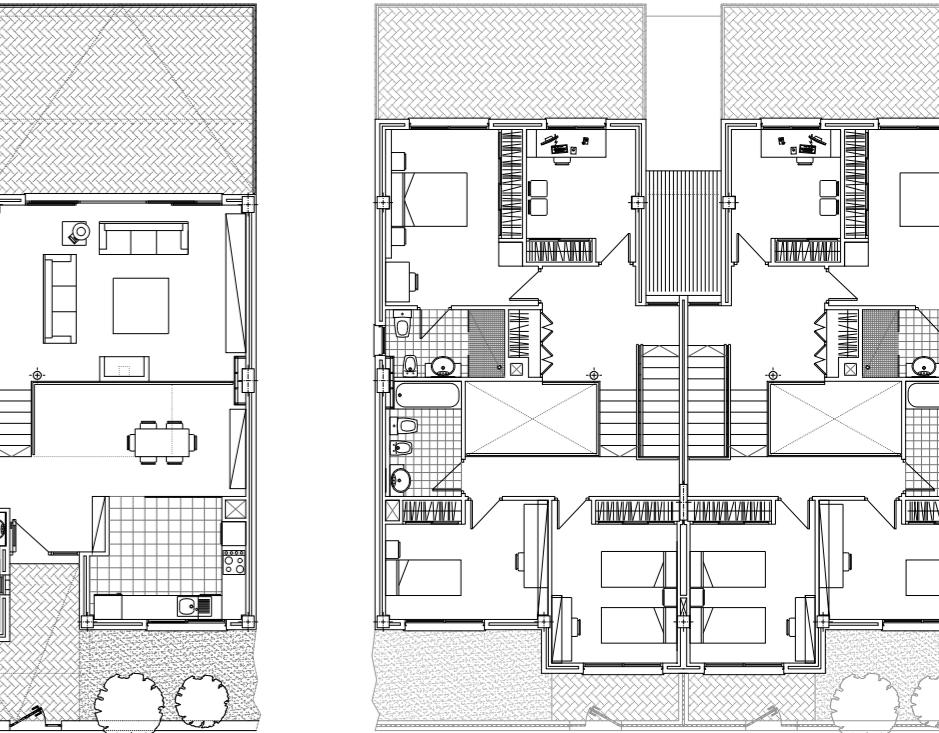
accesses at different levels and façades for each house. Furthermore, this also provides a number of private gardens and terraces, facing different orientations, which opens each property up towards the landscape.



Floor plan 0



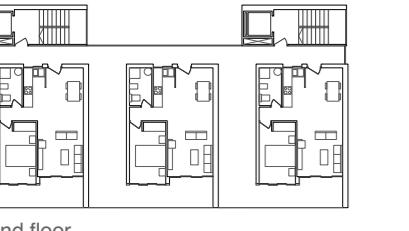
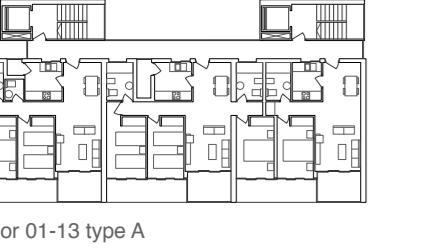
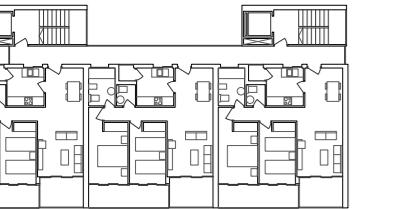
Floor plan 1



Floor plan 2

## 2.3 // APARTMENTS AND SPORT FACILITIES IN BENIDORM

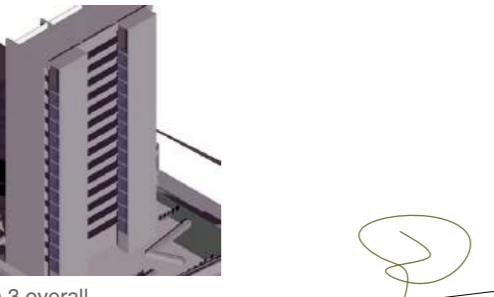
Benidorm - Alicante, Spain



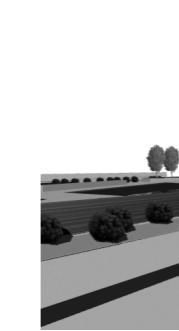
Visualisation 1 overall



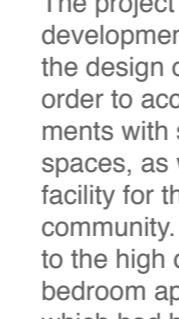
Visualisation 2 overall



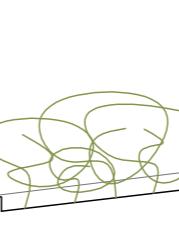
Visualisation 3 overall



Visualisation 4 shared landscape

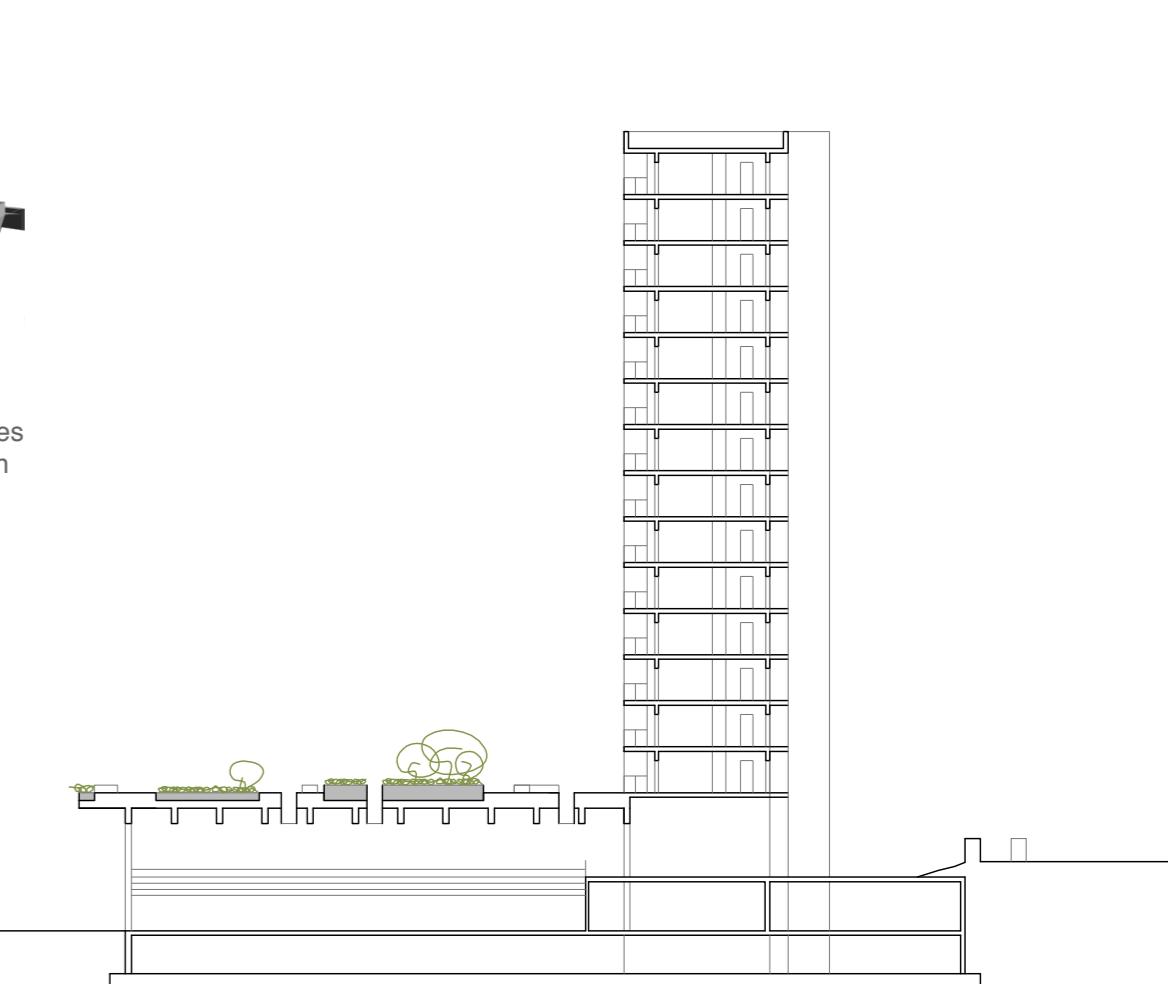


Visualisation 5 shared landscape



Visualisation 6 shared landscape

The project for this residential development in Benidorm comprises the design of multistorey building in order to accommodate 42 apartments with shared landscaped spaces, as well as a new sports facility for the use of the local community. The dwellings respond to the high demand of 1 to 2 bedroom apartments in this area, which had been rocketing recently.



## 2.4 // APARTMENTS IN L'HORTA NORD

Alboraia - València, Spain



### Context

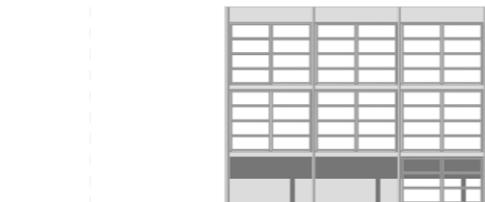
This project for a residential development responded to the need of designing a softer urban border along the north outskirts of the city of Valencia, enhancing its urban limits with the existing agricultural lands, so that both can tie in far better with one another.

The number, size and location of residential blocks are highly important in the urban design. However, when it comes to a semi-rural estate, it is also the type of architecture that plays an essential role in its connection with the surrounding landscape.

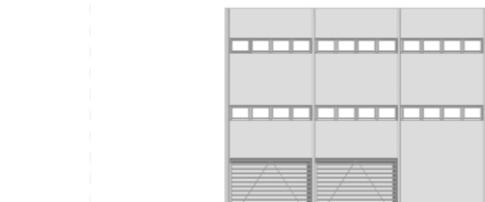
### Concept design

The architectural design consists in a typical multistorey block, which comprises 2 two-floor-dwellings of different sizes with a ground floor dedicated to car park use and shared access to the building.

By the concept design of a block that can be repeated in plan and in height, a good transition between the city and the landscape can be conveniently ensured. Following the concept, the taller blocks could tie in with the existing architecture, whereas the three-storey-blocks would fit better the urban limits. The highly see-through feeling of these blocks towards the crops is what brings them to a higher standard.



Typical floor plan 2B



Typical floor plan 1B



Typical floor plan 2A



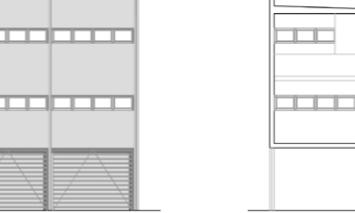
Typical floor plan 1A



North façade



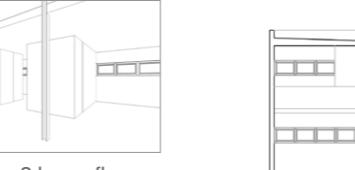
Long section 1



South façade



Long section 2



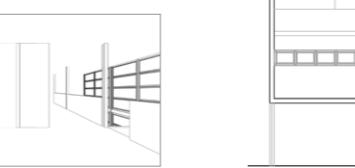
Visualisation 1 lower floor



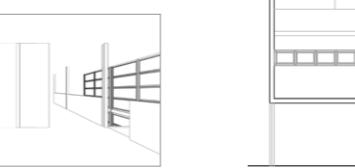
Visualisation 2 lower floor



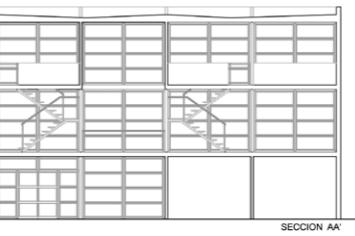
Long section 3



Visualisation 3 upper floor



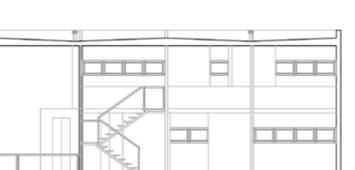
Visualisation 4 upper floor



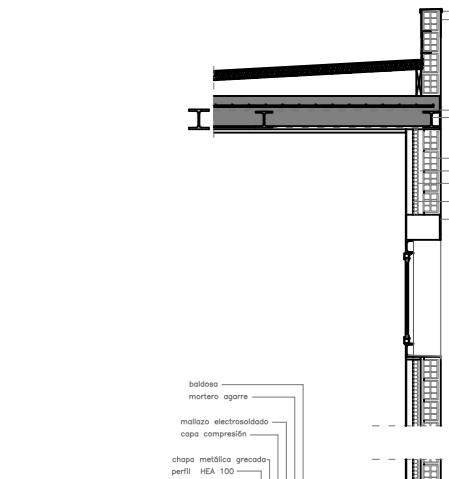
Cross section 1



Cross section 2



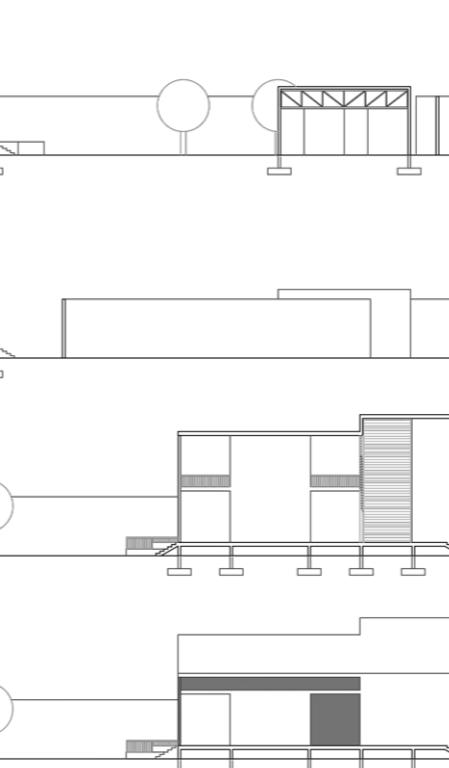
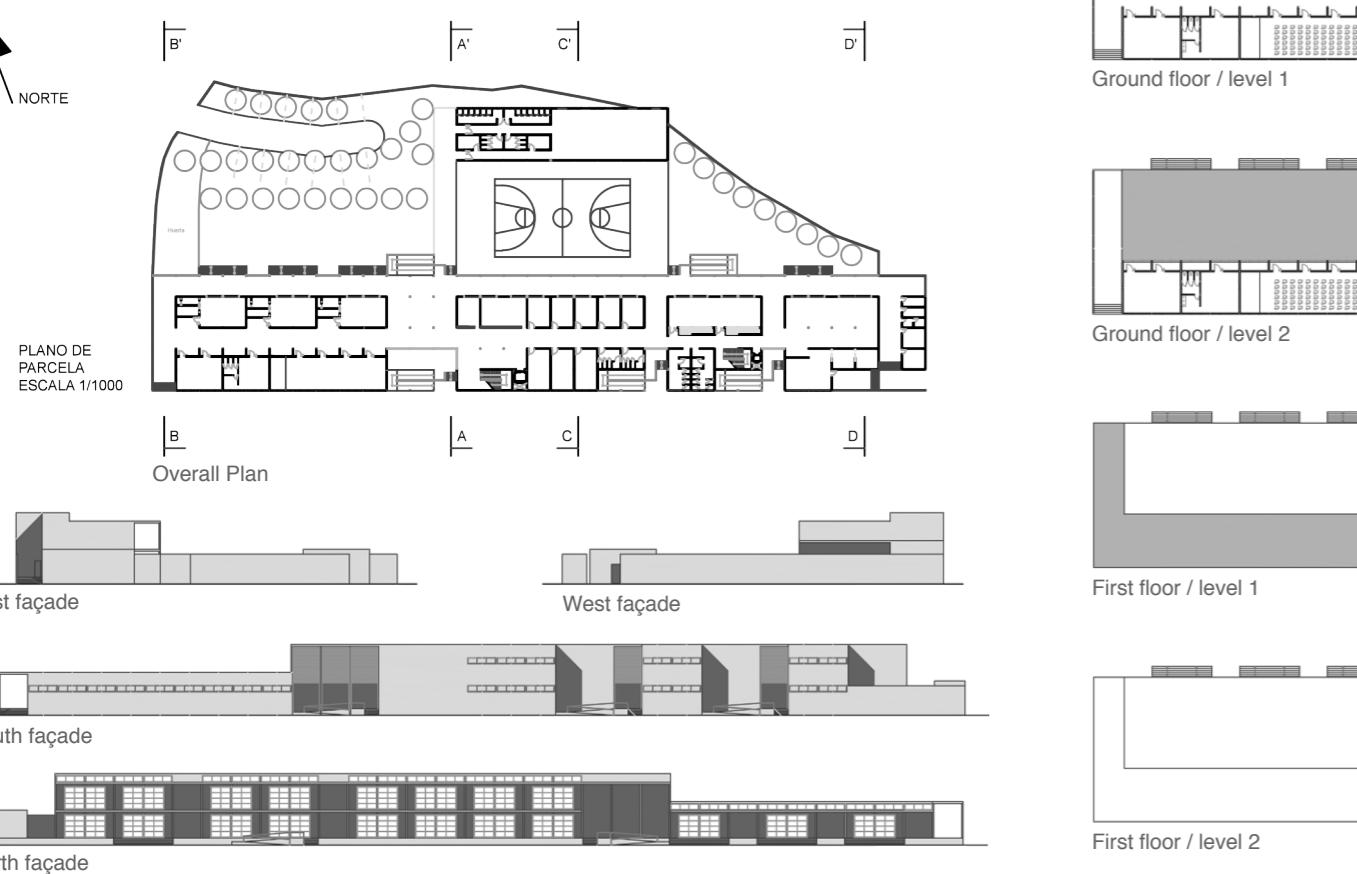
Cross section 3



Façade detail

## 2.5 // PRIMARY SCHOOL IN ALBORAIA

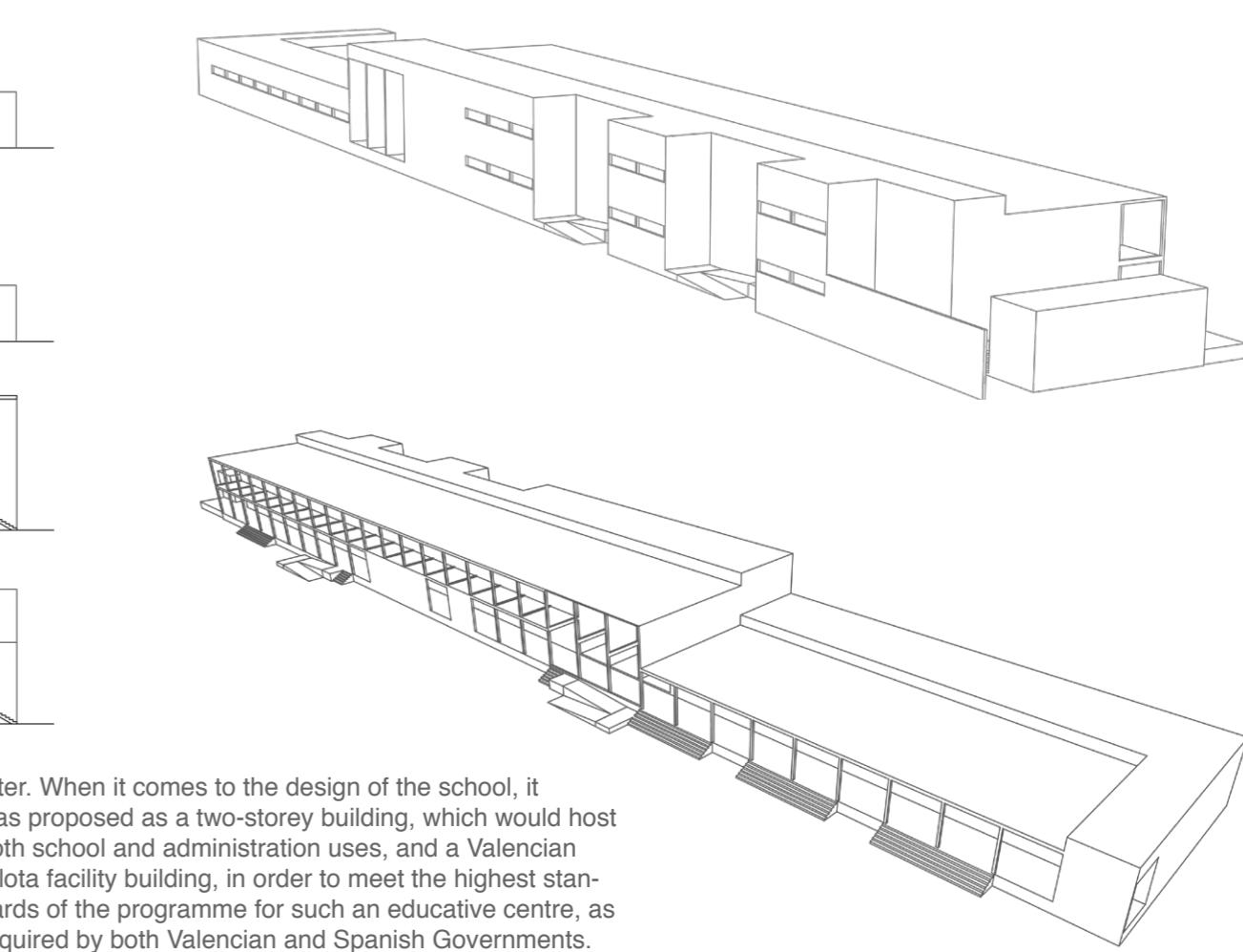
Alboraia - Valencia, Spain



The project for L'Horta Nord Primary School, in Alboraia,

was designed to tie in with the Urban Development Masterplan of L'Horta Nord, developed in 2000 within a UPV research project for the north outskirt of Valencia, which eventually resulted in a considerable number of proposals, many of which would be built during the years

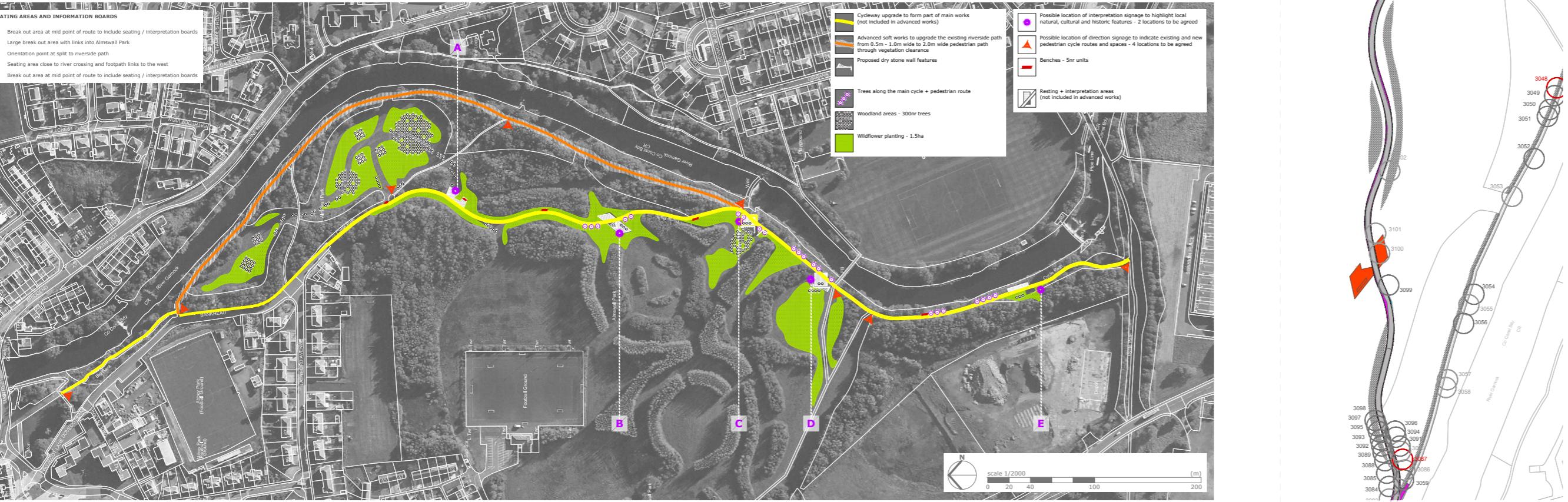
after. When it comes to the design of the school, it was proposed as a two-storey building, which would host both school and administration uses, and a Valencian Pilota facility building, in order to meet the highest standards of the programme for such an educative centre, as required by both Valencian and Spanish Governments.



### 3 // SUSTAINABLE MOBILITY AND LANDSCAPE

### 3.1 // KILWINNING COMMUNITY LINKS

Kilwinning, North Ayrshire, Scotland UK

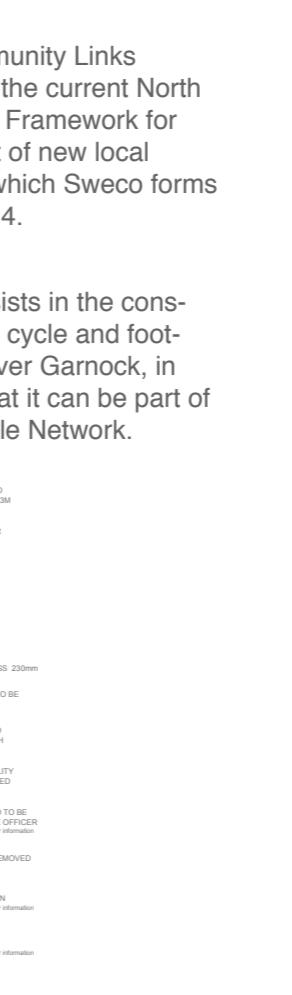


### Tender

Kilwinning Community Links project is part of the current North Ayrshire Council Framework for the development of new local infrastructures, which Sweco forms part of since 2014.

### Context

The project consists in the construction of a new cycle and footpath along the river Garnock, in Kilwinning, so that it can be part of the National Cycle Network.

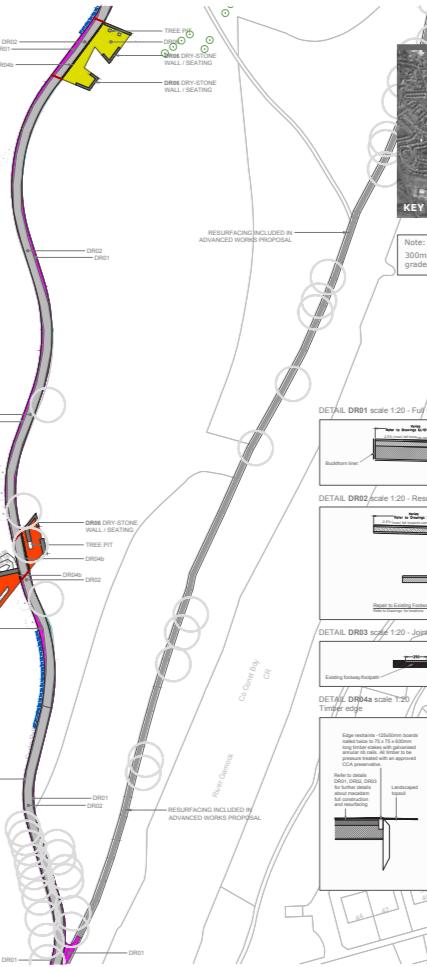


**Site clearance plan**

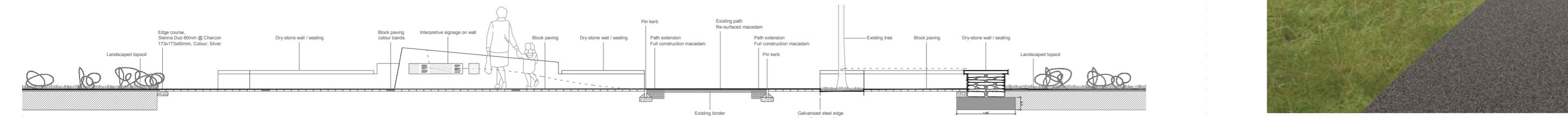
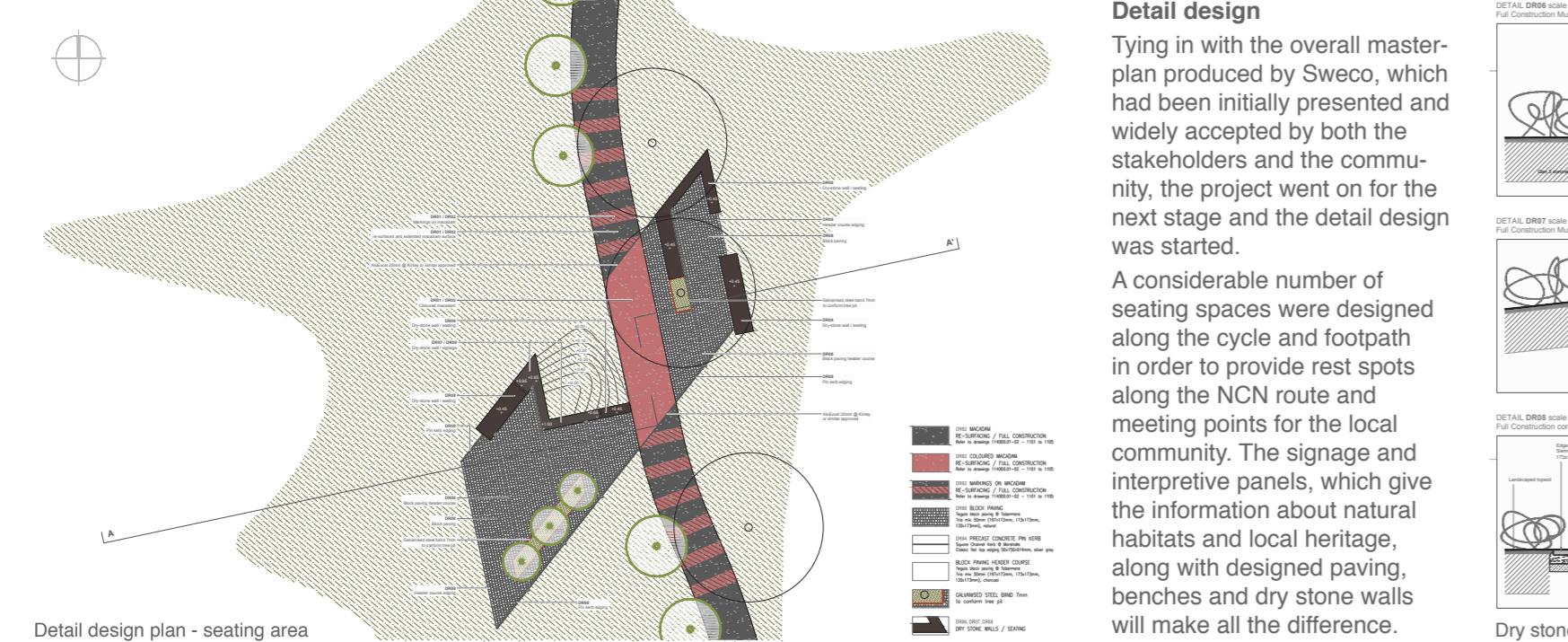
### Proposal

Although part of the proposed route already exists, the new design includes an upgrade of this footpath, so that it has a constant width of 3m, in order to have both cycle and pedestrian uses.

Additionally to the widening and remediation works, a number of seating spaces have been designed along the path, as well as different tree and wildflower planting, which is part of originally commissioned masterplan.



**Detail design plan**



## Detail design

Tying in with the overall master-plan produced by Sweco, which had been initially presented and widely accepted by both the stakeholders and the community, the project went on for the next stage and the detail design was started.

A considerable number of seating spaces were designed along the cycle and footpath in order to provide rest spots along the NCN route and meeting points for the local community. The signage and interpretive panels, which give the information about natural habitats and local heritage, along with designed paving, benches and dry stone walls will make all the difference.

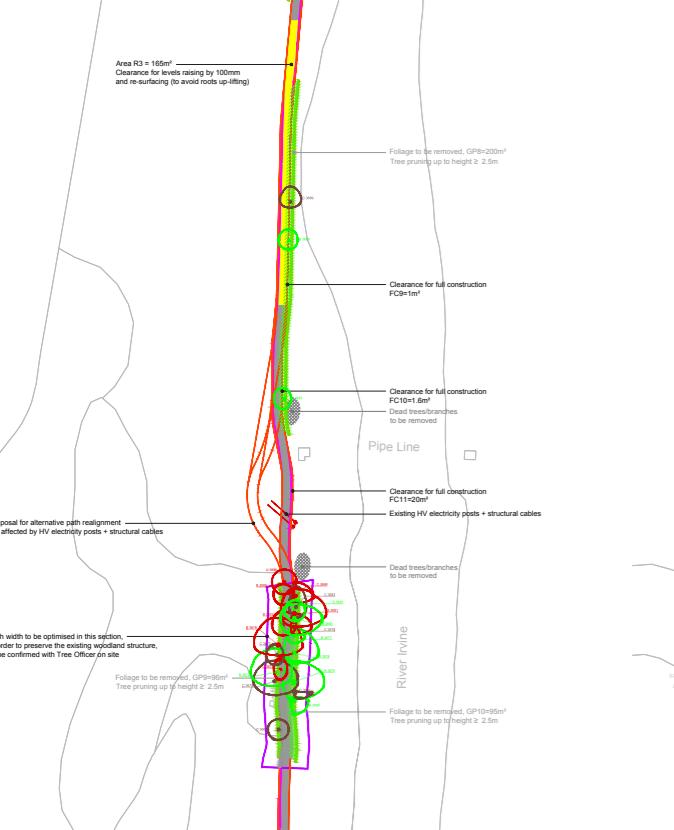


**Dry stone wall detail**



## 3.2 // i3 ENTERPRISE ACTIVE TRAVEL LINKS

Irvine, North Ayrshire, Scotland UK



Tree felling plan



Detailed design plan

### Tender

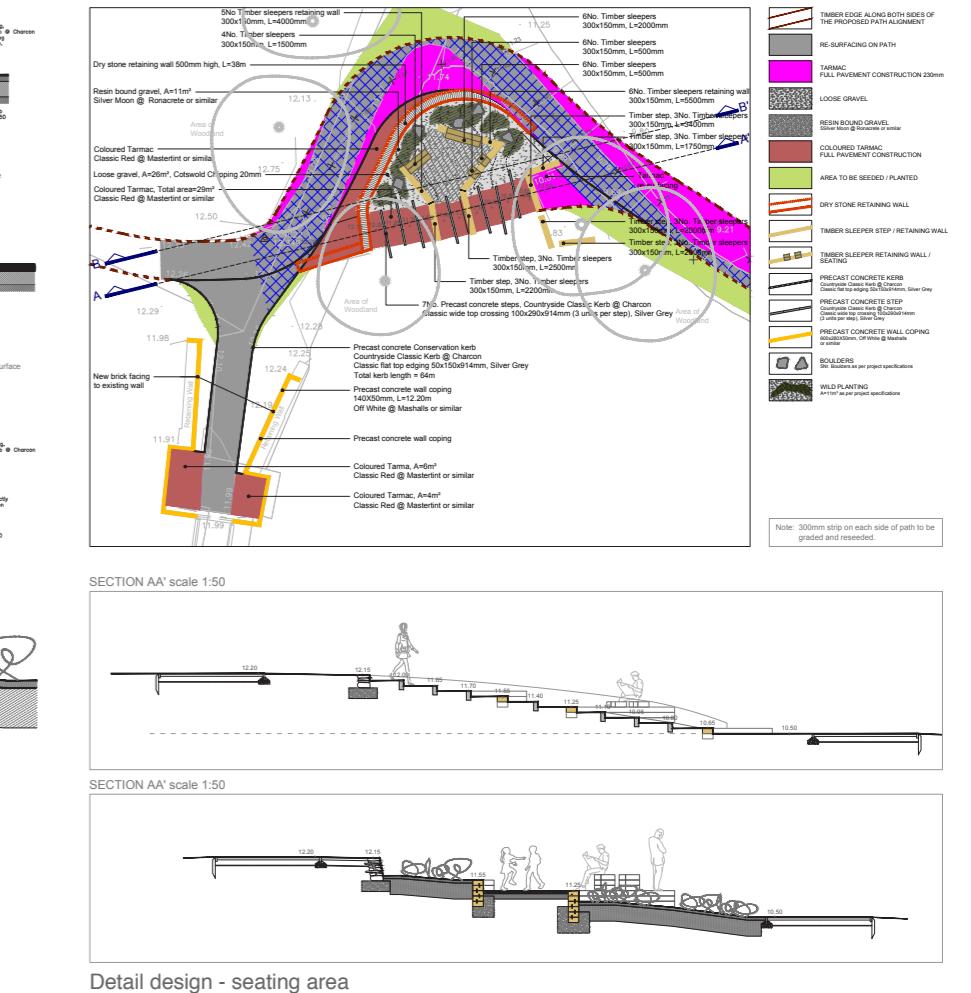
i3 Enterprise Active Travel Links project is part of the current North Ayrshire Council Framework for the development of new local infrastructures, which Sweco forms part of since 2014. In this particular case, the acquired tender comprised only RIBA stages 1 to 3.

### Context

The project consists in the upgrade of an existing footpath, to make a 3m wide cycle and footpath along the river Irvine, in the surroundings of Irvine, so that it can be part of the National Cycle Network.

### Detail design

As part of the overall design, a seating space was designed in detail in order to provide a rest and information space along the NCN route. The considerably steep gradient was a good chance to retrace the footpath at this point, so that the gradient could be reduced to over 21%, and also to designed a stepped space, where seating, signage and cycle hoops provided a very convenient rest point.



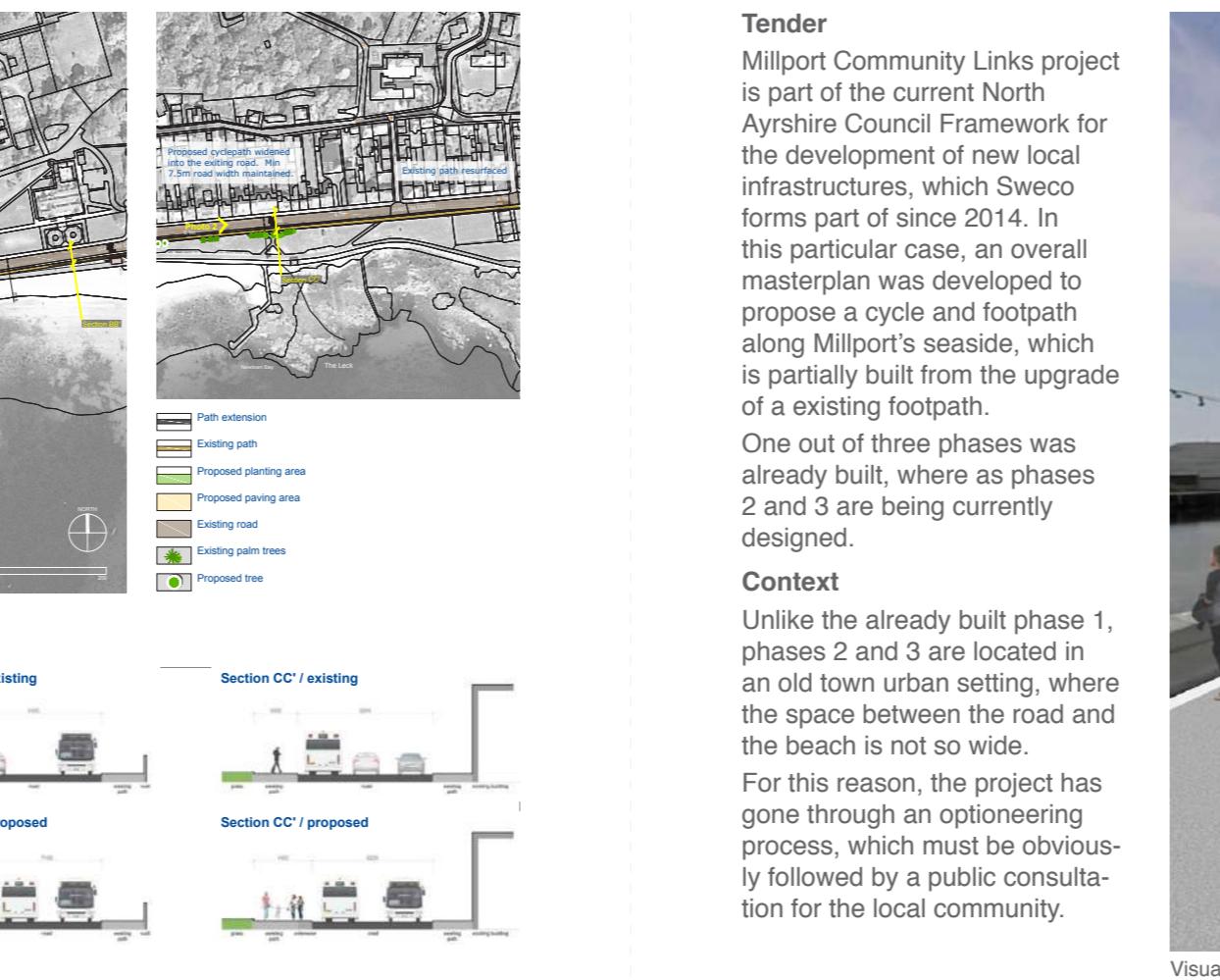
Detail design - seating area

### 3.3 // MILLPORT COMMUNITY LINKS

Millport, Island of Cumbrae, North Ayrshire, Scotland UK



Current state of site



Concept design optioneering

#### Tender

Millport Community Links project is part of the current North Ayrshire Council Framework for the development of new local infrastructures, which Sweco forms part of since 2014. In this particular case, an overall masterplan was developed to propose a cycle and footpath along Millport's seaside, which is partially built from the upgrade of an existing footpath.

One out of three phases was

already built, whereas phases

2 and 3 are being currently

designed.

#### Context

Unlike the already built phase 1,

phases 2 and 3 are located in

an old town urban setting, where

the space between the road and

the beach is not so wide.

For this reason, the project has

gone through an optioneering

process, which must be obvi-

ously followed by a public consulta-

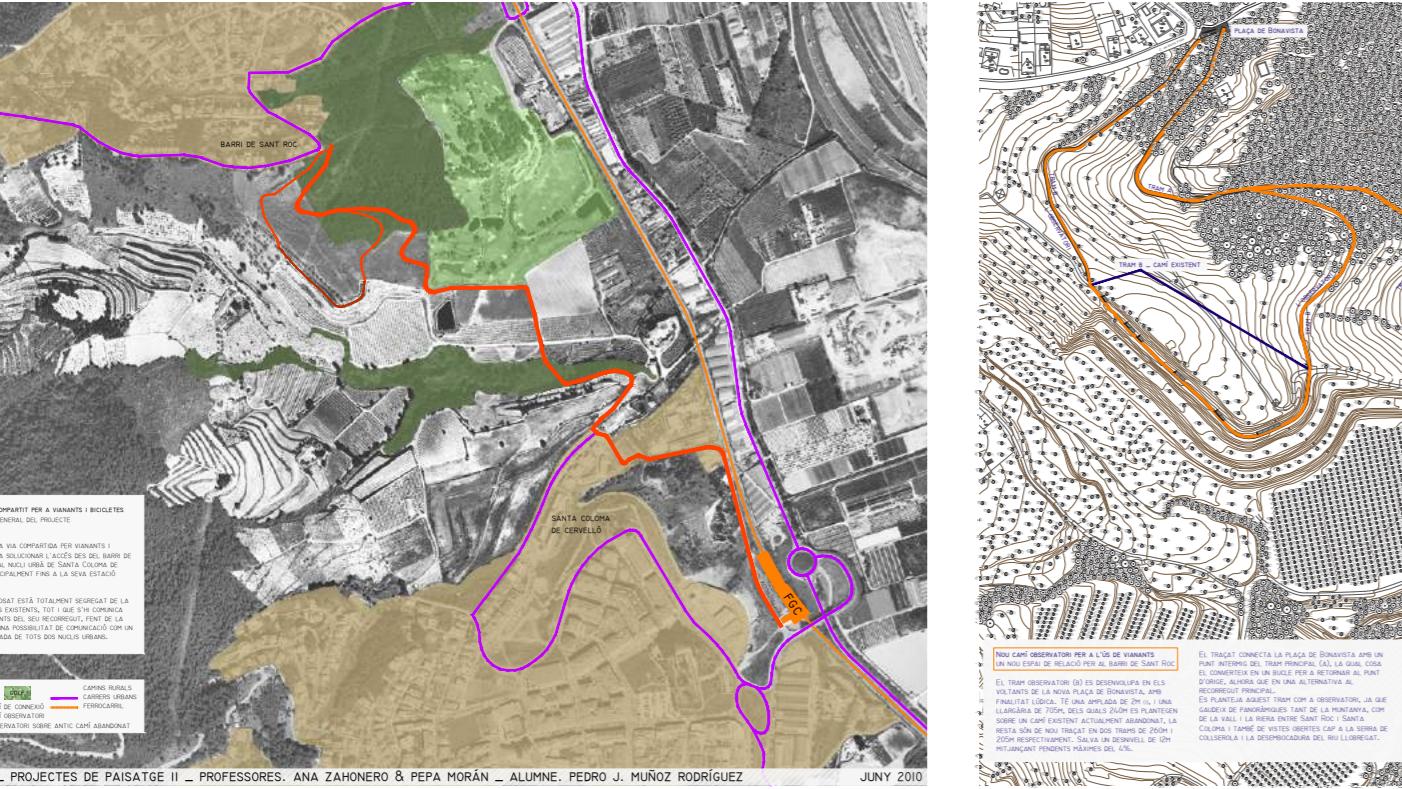
tion for the local community.



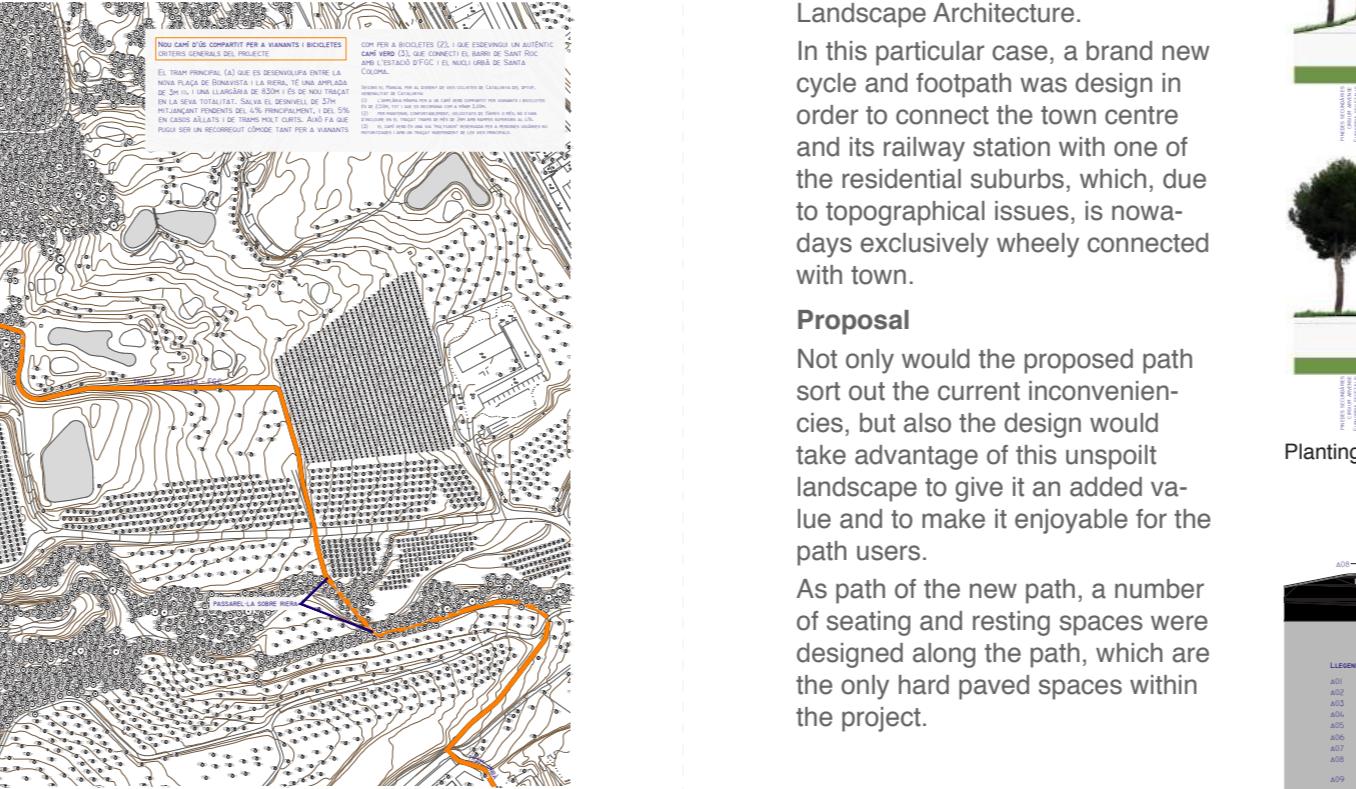
Visualisation of the proposal

### 3.4 // CYCLE PATH SANTA COLOMA DE CERVELLÓ

Santa Coloma de Cervelló, Barcelona  
Case Study produced for MUP 2010 - ETSAB



Masterplan



General arrangement plan

#### Context

The project of a cycle and footpath in Santa Coloma de Cervelló is part of the case studies developed within the Master's degree in Landscape Architecture.

In this particular case, a brand new cycle and footpath was design in order to connect the town centre and its railway station with one of the residential suburbs, which, due to topographical issues, is nowadays exclusively wheely connected with town.

#### Proposal

Not only would the proposed path sort out the current inconveniences, but also the design would take advantage of this unspoilt landscape to give it an added value and to make it enjoyable for the path users.

As path of the new path, a number of seating and resting spaces were designed along the path, which are the only hard paved spaces within the project.

#### Planting sections



Planting sections

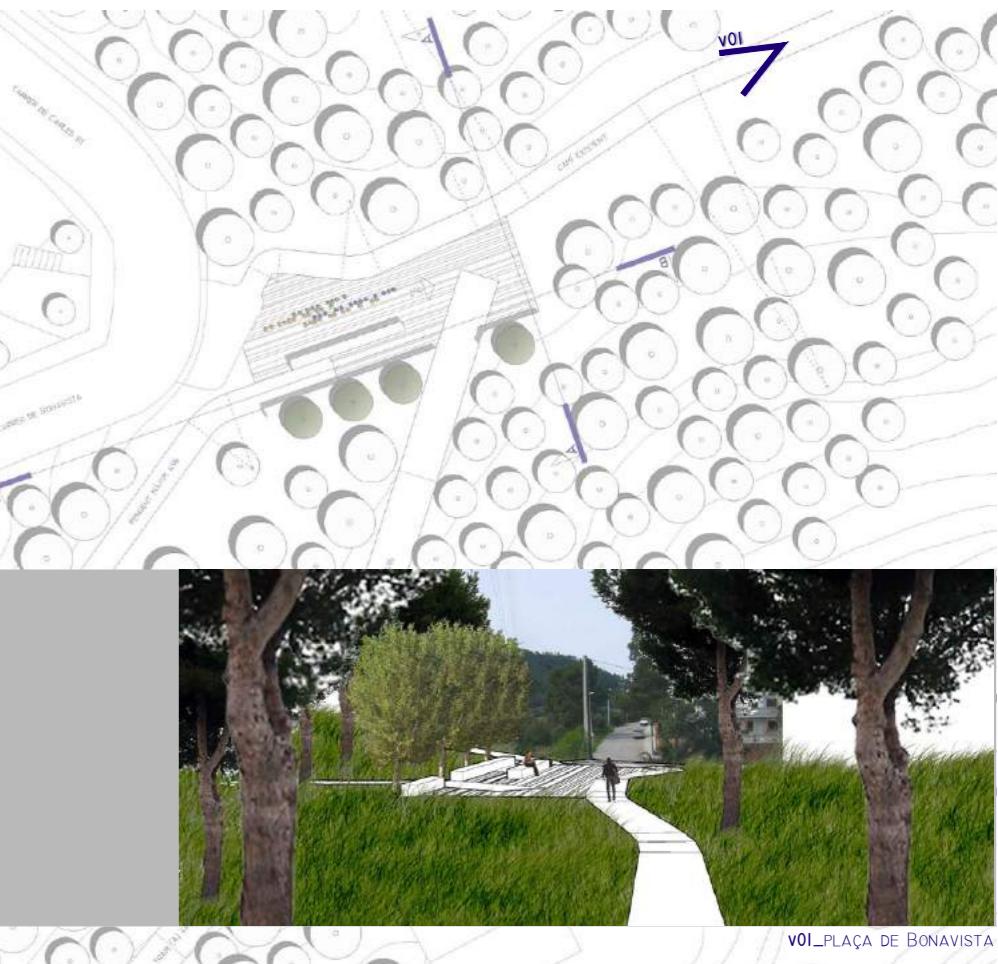


Planting sections



Planting sections

Detail design section



Detail design and visualisation of Plaça de Bonavista

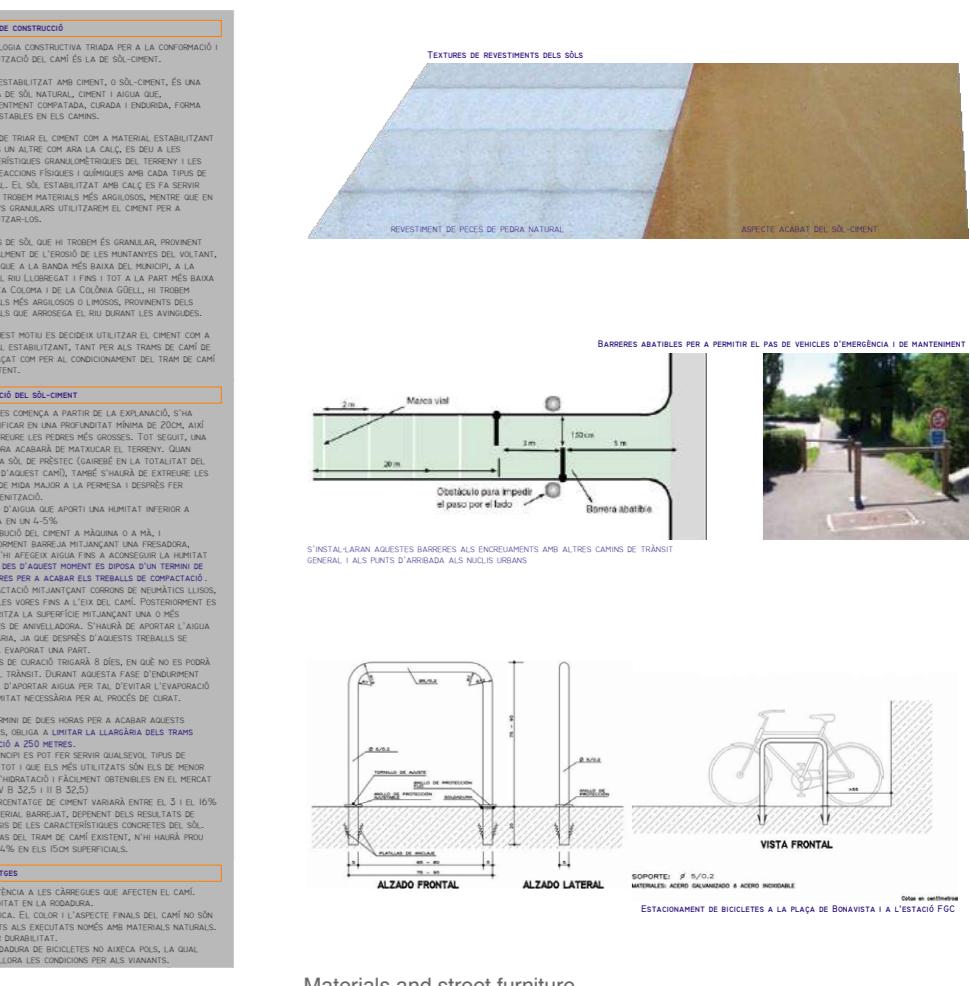
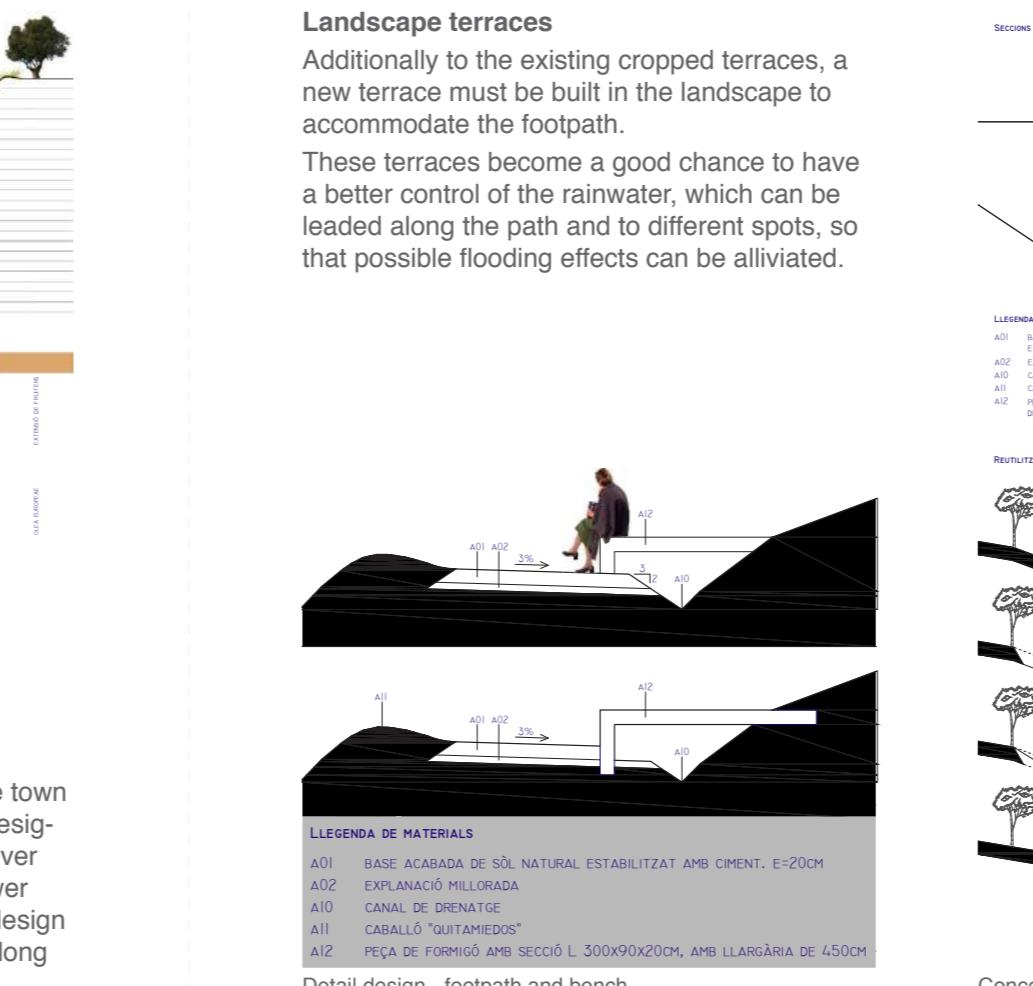


visualisations from proposed viewpoint

## Landscape terraces

Additionally to the existing cropped terraces, a new terrace must be built in the landscape to accommodate the footpath.

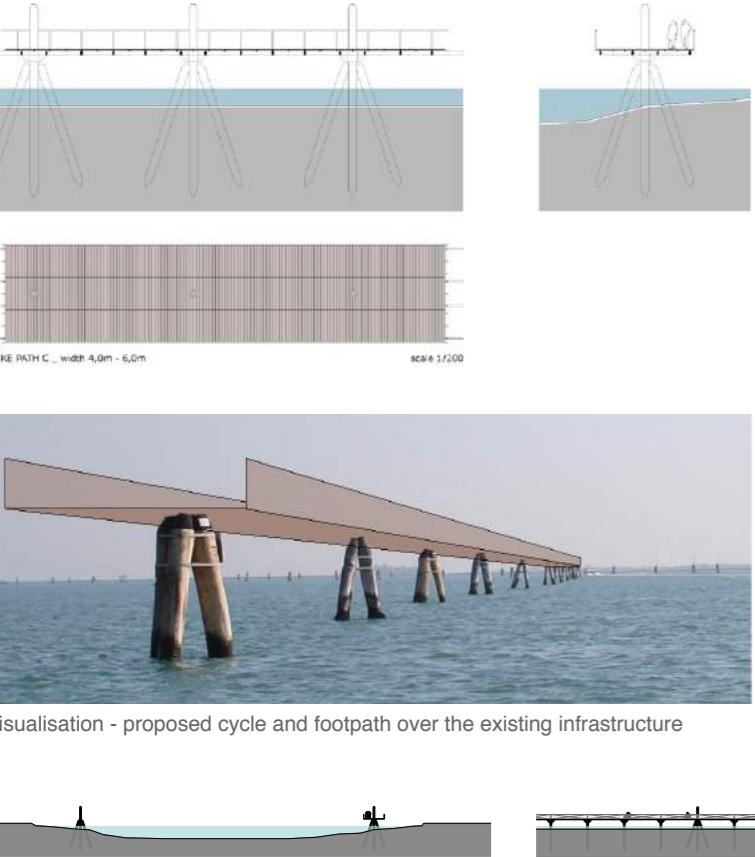
These terraces become a good chance to have a better control of the rainwater, which can be leaded along the path and to different spots, so that possible flooding effects can be alleviated.



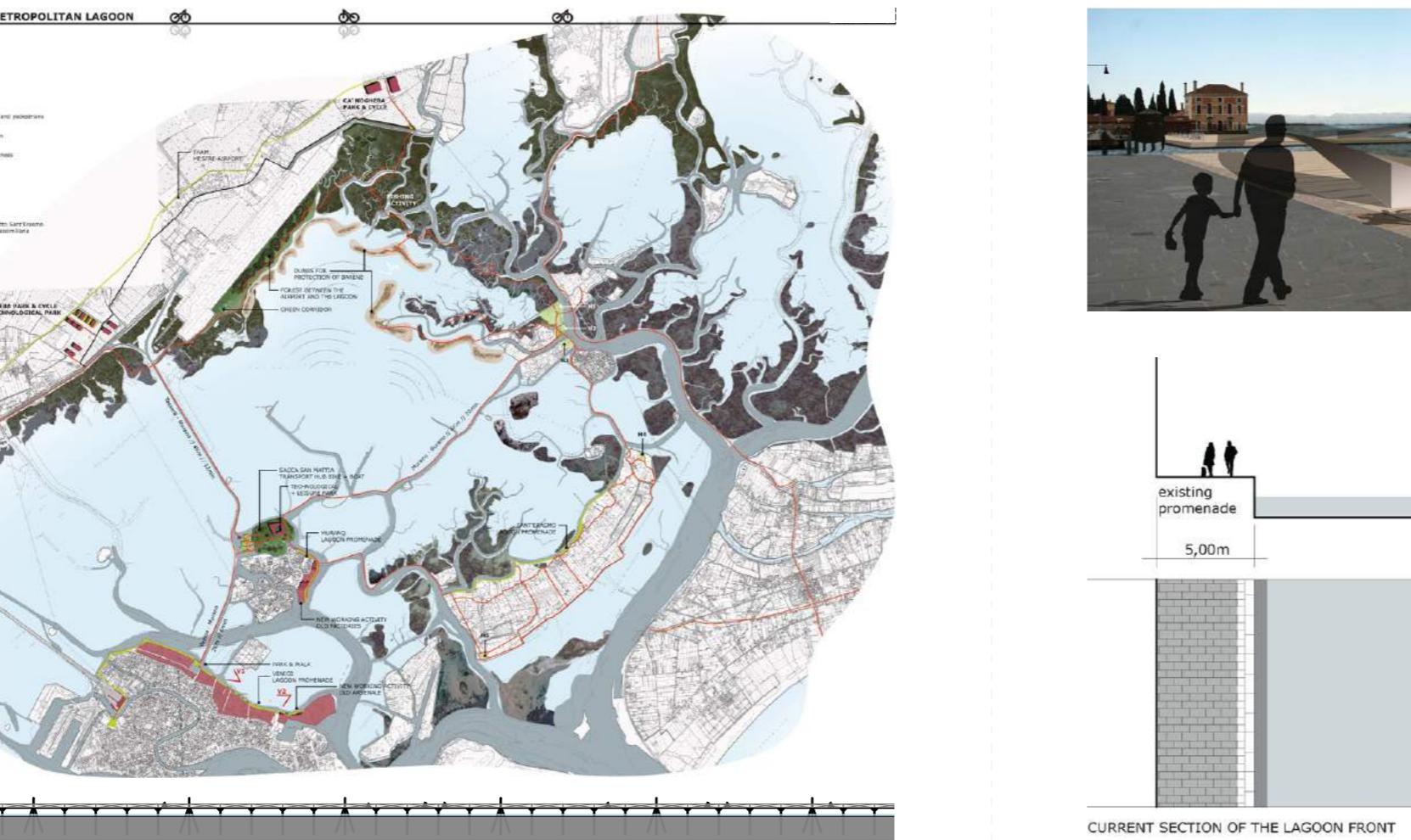
## Materials

# **3.5 // RE-CYCLING VENICE**

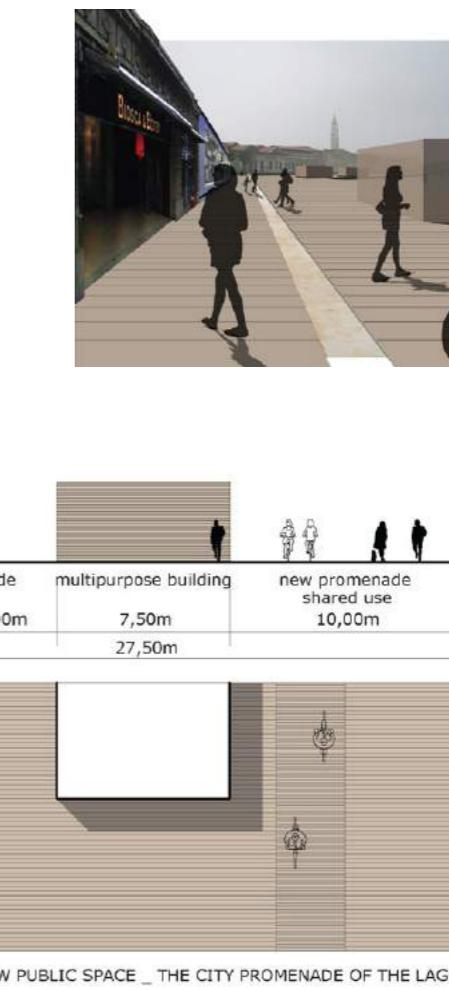
## Venice Lagoon, Italy



visualisation - proposed cycle and footpath over the existing infrastructure



PROPOSED SECTION OF THE



W PUBLIC SPACE \_ THE CITY PROMENADE C

A photograph showing a person from behind, riding a bicycle on a wooden boardwalk. The boardwalk runs parallel to a canal, with buildings visible in the background under a clear sky.

**Context**

The extremely intense concentration of tourism in Venice during the last decades produced social, economical and demographical changes across the lagoon and its islands. Many of the industrial activity was closed down during the 20th century, and this caused the gradual abandonment of parts of the city and even whole islands in the lagoon.

In these days, in which the communication is one of the most important factors that can significantly increase the local economy, not only can the proposed improvements for travel links be a good help, but also it is the protection of the local habitats of the lagoon what can make all the real difference.

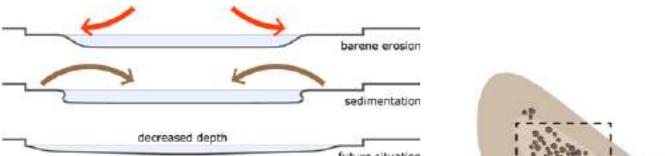
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The proposal comprises two main targets, which are the improvement of the travel links across the lagoon and the preservation and restoration of the natural habitats, which are so fragile and for so long time affected by the ships.

The main proposal consists in the design of a new cycle and footpath across the lagoon, taking advantage of the existing infrastructure along the canals.



'Barene' - current protection system

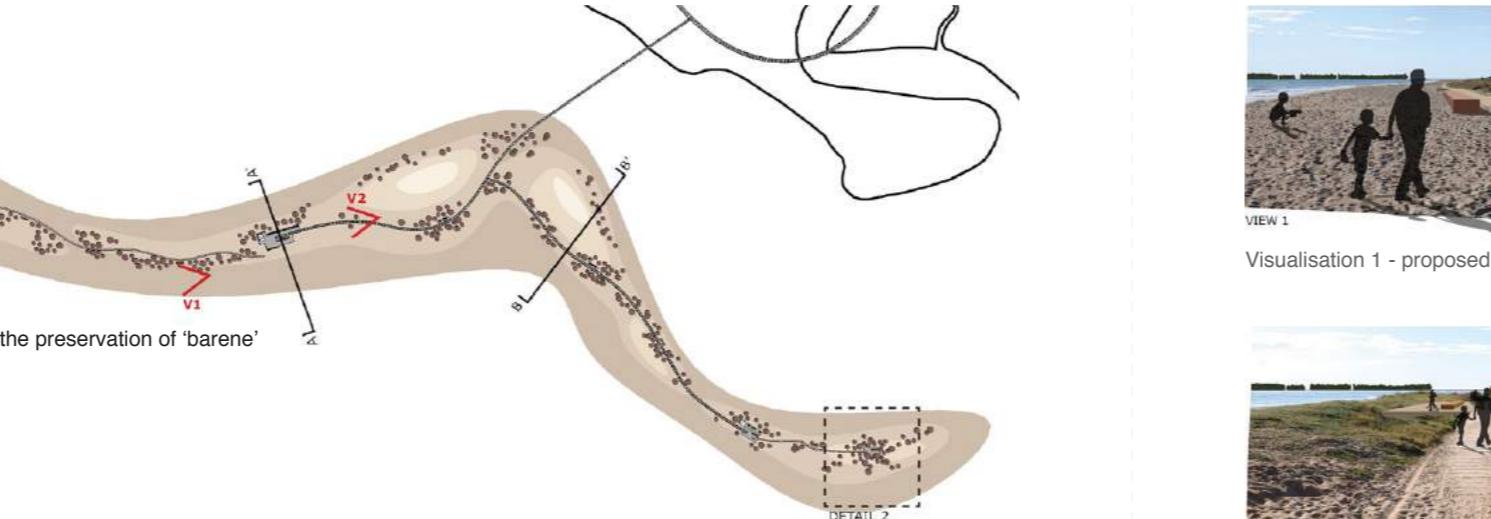
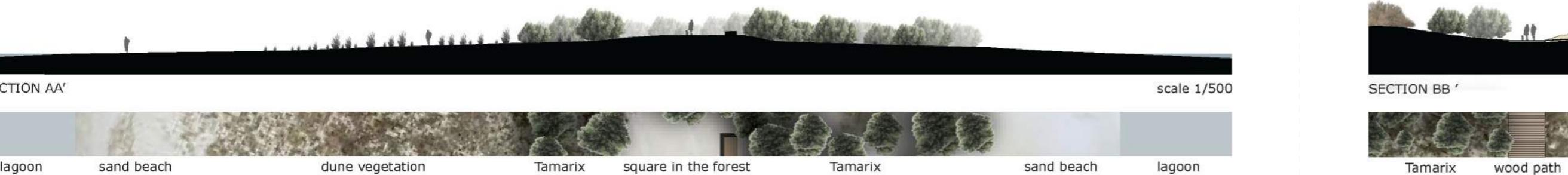


Typical erosion of a 'barene'

### Habitat protection

Although the new cycle and footpath can disperse the amount of commuters and visitors travelling by 'vaporetti', there is still a risk of erosion of the 'barene' habitats, which has been intensified in the last years.

The design of a system of new islands can create a protection barrier that protects the 'barene' from the waves produced by 'vaporetti'.



VIEW 1

Visualisation 1 - proposed barrier island

VIEW 2

Visualisation 2 - proposed barrier island



Populus alba

Ulmus minor



Arthrocnemum fruticosum

Pucinella palustris



Limonium serotinum



Juncus maritimus

Limonium serotinum



Spartina maritima

Phragmites australis



Dese tidal freshwater marsh



DESE TIDAL FRESHWATER MARSH

Phragmites australis



Planting schedule - barrier island



Planting schedule - dunes generation



(the criteria for selecting the species is based in their resistance to brackish environments)



(the criteria for selecting the species has been the most common and suitable species for the stabilization of dunes)



60%

Tamarix africana 30%

Tamarix gallica 25%

Saccharum ravennae 5%

COVERED in 25 years 60%

Tamarix africana 13%

Tamarix gallica 10%

Saccharum ravennae 7%

COVERED in 10 years 30%

Tamarix africana 4%

Tamarix gallica 2%

Saccharum ravennae 9%

COVERED by planting 15%

Tamarix africana 1%

Tamarix gallica 1%

Saccharum ravennae 7%

scale 1/500

