



**Action C8: Water management
viability study and green
infrastructure prototype in an urban
space in Amurrio.
Technical publication**

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This project is part of the project LIFE16 CCA/ES/000040-Good Local Adapt.





The prototype in urban space was going to be implemented in the municipality of Amurrio, but finally, for different reasons, it was carried out in Legazpi.

After several sessions held with citizens, mainly in the neighbourhoods of San Ignacio, San Martín and Aranzazu, the selected urban space is in the neighbourhood of San Ignacio. It was an urban public space with very few green areas and with concrete and asphalt surfaces, which easily became waterlogged during episodes of continuous or torrential rain.

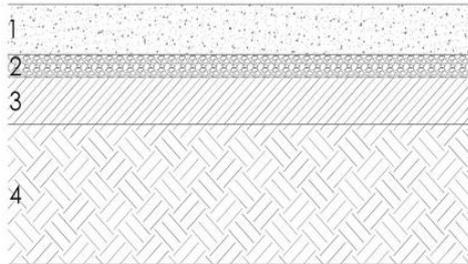
The project is based on rearranging the existing car parks in the aforementioned street in order to create a pedestrian area that will create a viewpoint towards the Plaza del street in order to create a pedestrian area that generates a viewpoint towards the square of the San Ignazio Auzoa children's park.

San Ignazio Auzoa playground. It is proposed to remove the current asphalt paving and combine it with permeable paving, combined with permeable paving that is friendlier to the neighbourhood. Green parking areas will be created green parking areas, it is proposed to include trees and a pergola to provide shade to the space.

The work undertaken will demonstrate the technical and financial feasibility of implementing urban design solutions based on green infrastructure elements and provides a showcase for adaptation.

Details of the solutions will be applied are given below:

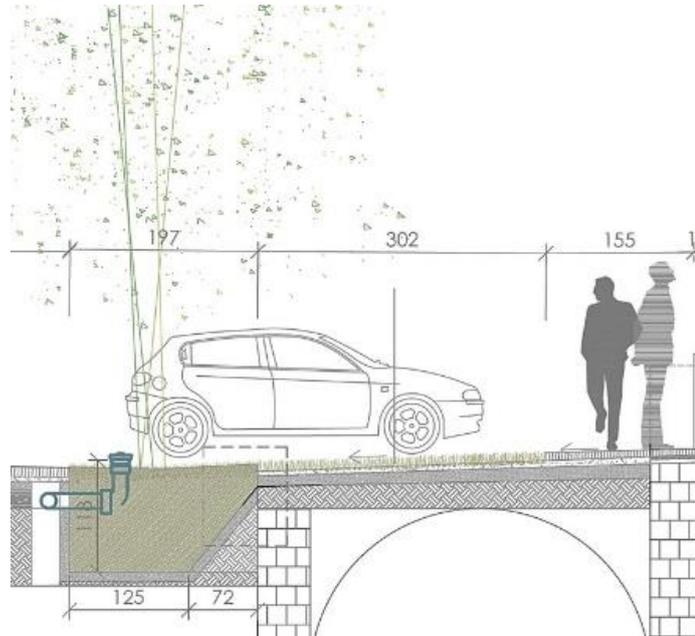
Permeable paving. It helps to minimise existing flooding problems linked to rainfall, while supporting heat dissipation on high temperature days, thanks to the high albedo materials. In addition, the new pavement, made of porous concrete, is mostly laid on top of the existing asphalt, due to the impermeability of the existing ground, and rainwater is conveyed to the stormwater tank.



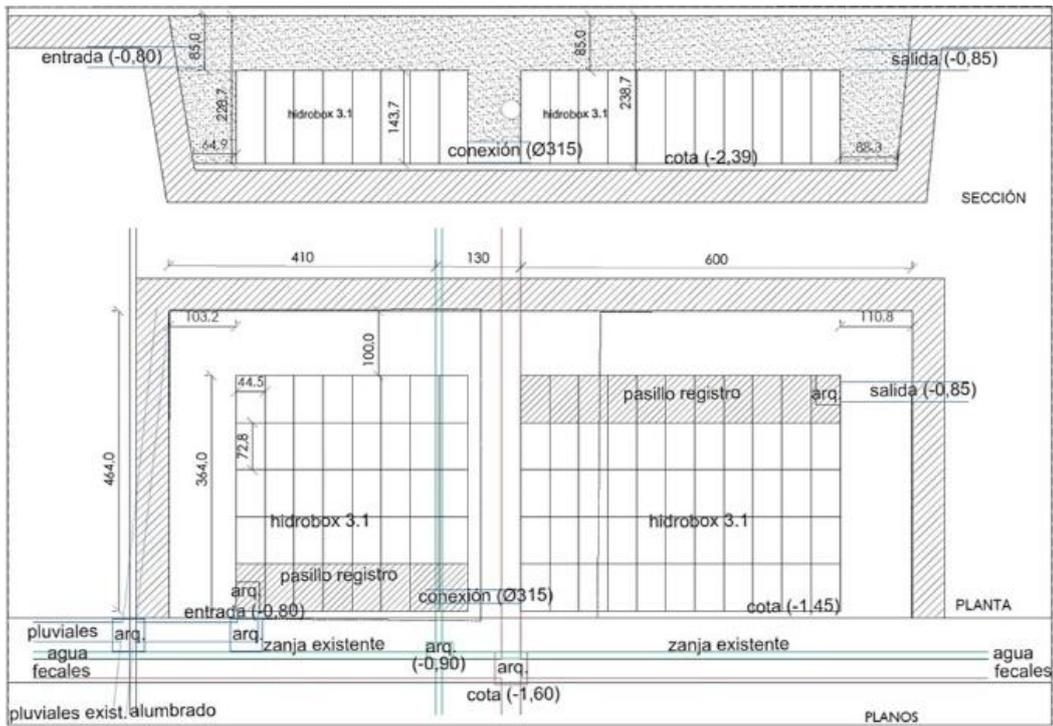
1. permeable concrete pavement (8cm thick - pedestrian; 10,8cm thick - traffic)
2. clean gravel Ø3-6mm (max 5cm thick)
3. concrete base (min 10cm thick)
4. compacted soil subgrade (35cm)



Bioretention areas. The project includes nine new bioretention areas, integrating woodland (5 birch and 4 sweetgum), combined with esparto grass and grasses. Again, due to the impermeability of the terrain, stormwater overflow from these bioretention areas is connected to the stormwater tank, which is explained below.



Rainwater tank. Due to the impermeability of the terrain, rainwater is collected and conveyed to an infiltration tank made of reinforced polyurethane cells, covered by impermeable EPDM membranes and topsoil. The volume of the tank is 41.85 m³, calculated to retain an average rainwater event of 25 l/m².



The following image summarises the proposal made.

