

Pedro Muñoz

architecture & landscape
portfolio of works 2018

INDEX

4 // LINEAR LANDSCAPES

4.1 // A63 CASTLE STREET Kingston upon Hull, England UK



52



53

Context

The project emerged from the need of upgrading the current highway across the city of Hull, in order to absorb the significant amount of traffic generated by the adjacent port.

Proposal

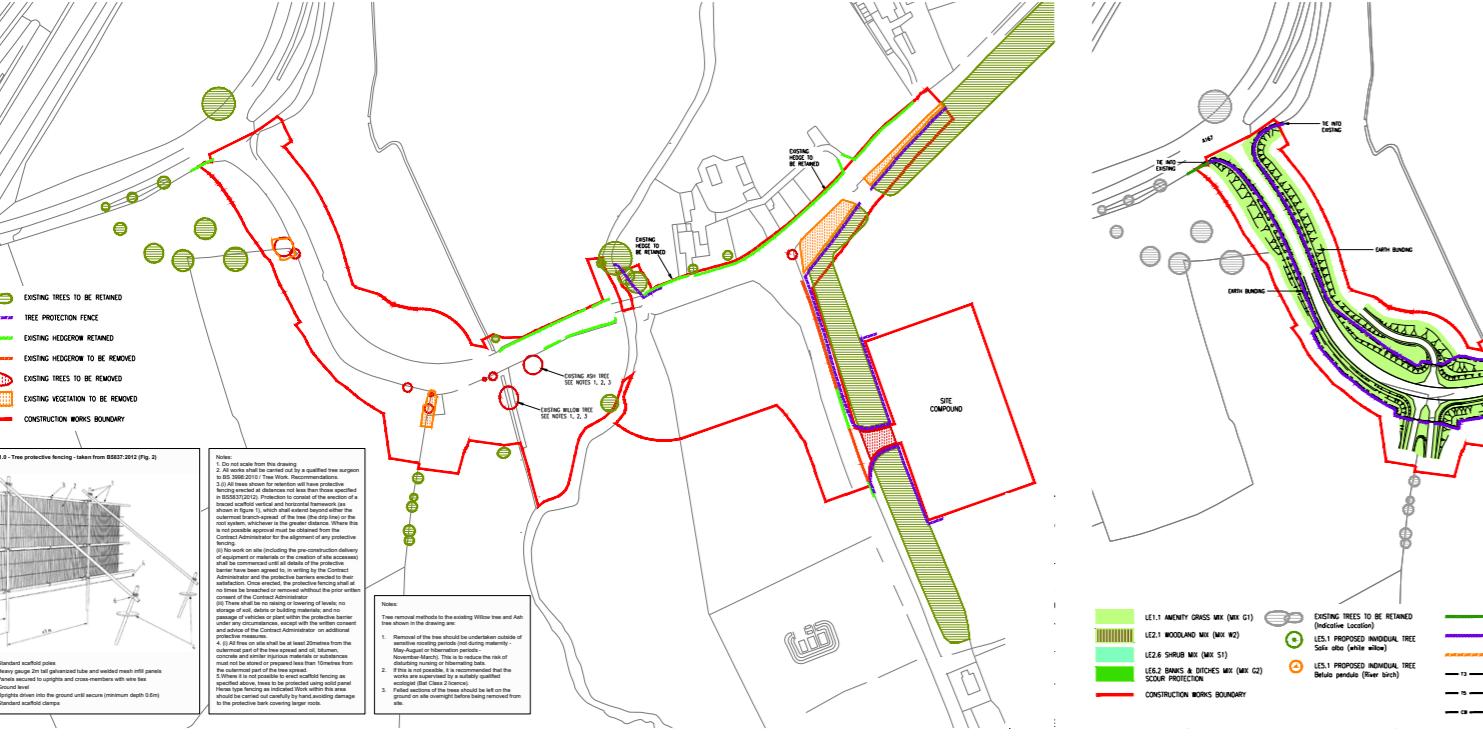
The proposed upgraded infrastructure,

which obviously occupies a considerable width of public and private land to both sides of the existing highway, overruns existing vegetation and trees, which currently play an important role as a



4.2 // DALTON LANE

Thirsk, North Yorkshire, England UK



Context and proposal

As part of the upgrade of highway along Dalton Lane, in Thirsk, a new bridge is being built as well. These works and the site compound used them will require further remediation landscape.

Visual impact

Additionally, the visual impact produced

to some the adjacent properties requires

a planting buffer solution in some spots,

which have been evaluated along the

road.



4.3 // A6MARR Greater Manchester, UK

Context

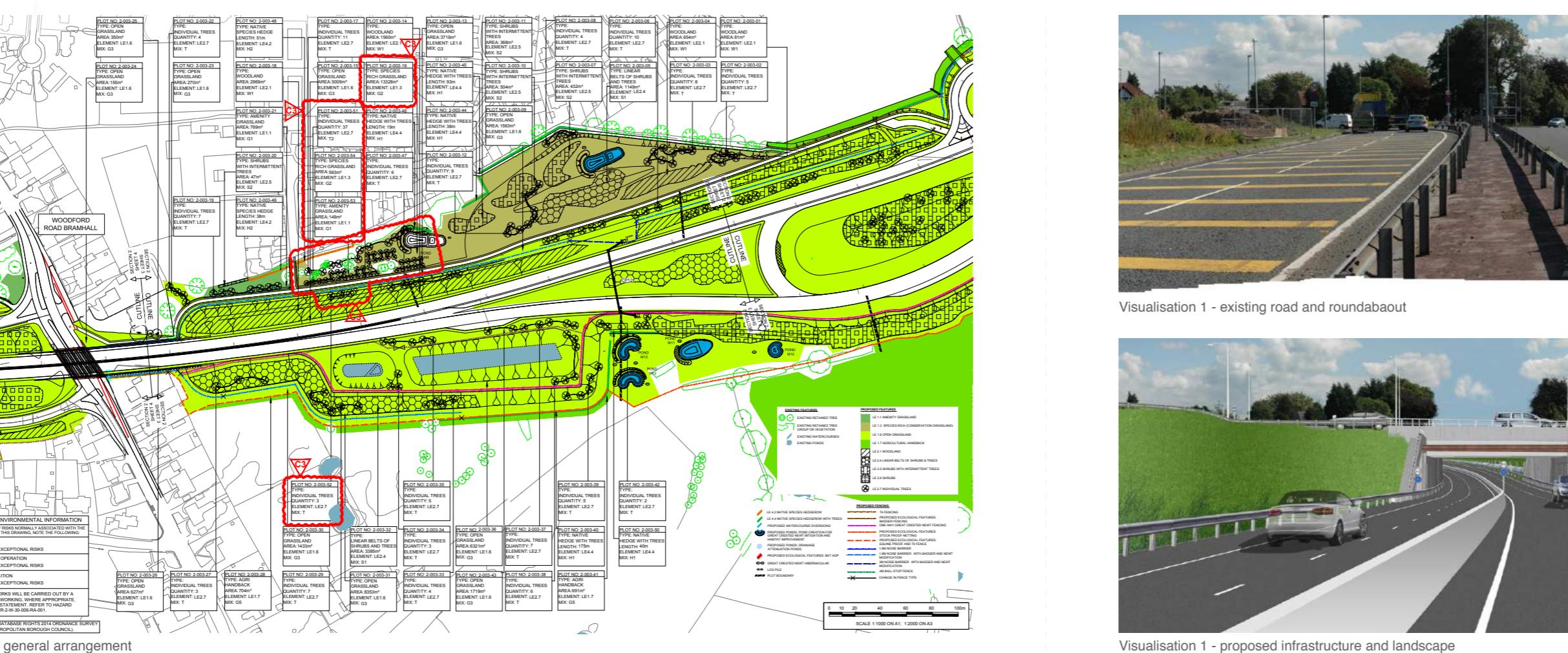
As part of the landscape works designed to tie in with the new design for the A6 Manchester Airport Relief Road, a number of spots have been detailed designed, in order to evaluate their possible visual impact on the adjacent properties and landscape.

Landscape proposal

The landscape proposal comprises the design of remediation works for areas affected during the construction process, of SuDS, as well as of new green areas across the proposed topography, in order to create an ecological interest.

Visualisations

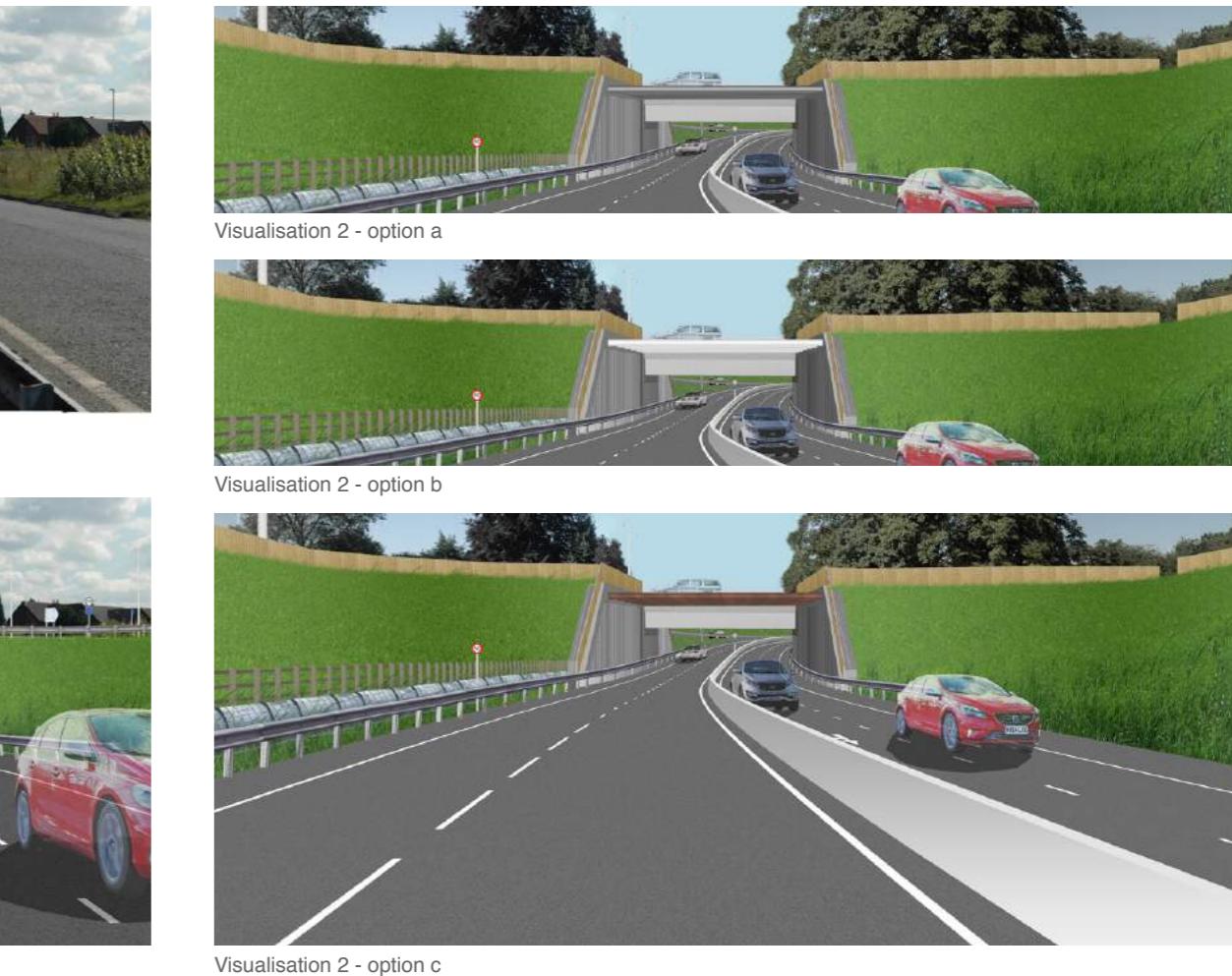
The production of visualisations in specific spots of the design will give the chance to evaluate the visual impact.



Landscape general arrangement



Visualisation 1 - existing road and roundabout



Visualisation 1 - proposed infrastructure and landscape

Visualisation 2 - option c

5 // EDUCATION AND HIGHER EDUCATION

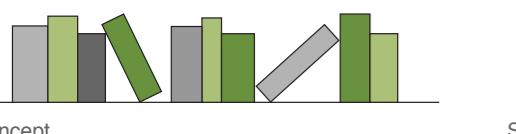
5.1 // NOTTINGHAM TRENT UNIVERSITY LIBRARY

Brackenhurst Campus, Southwell, England UK



Concept

The project for the Library Square proposes a sequence of spaces with increasing graduation of privacy from the road to the backcourts of the library buildings. Following this concept, the outer space provides most of the seating and the connection to the rest of the campus. Beyond there, a central courtyard offers a quieter square for the students.



Concept



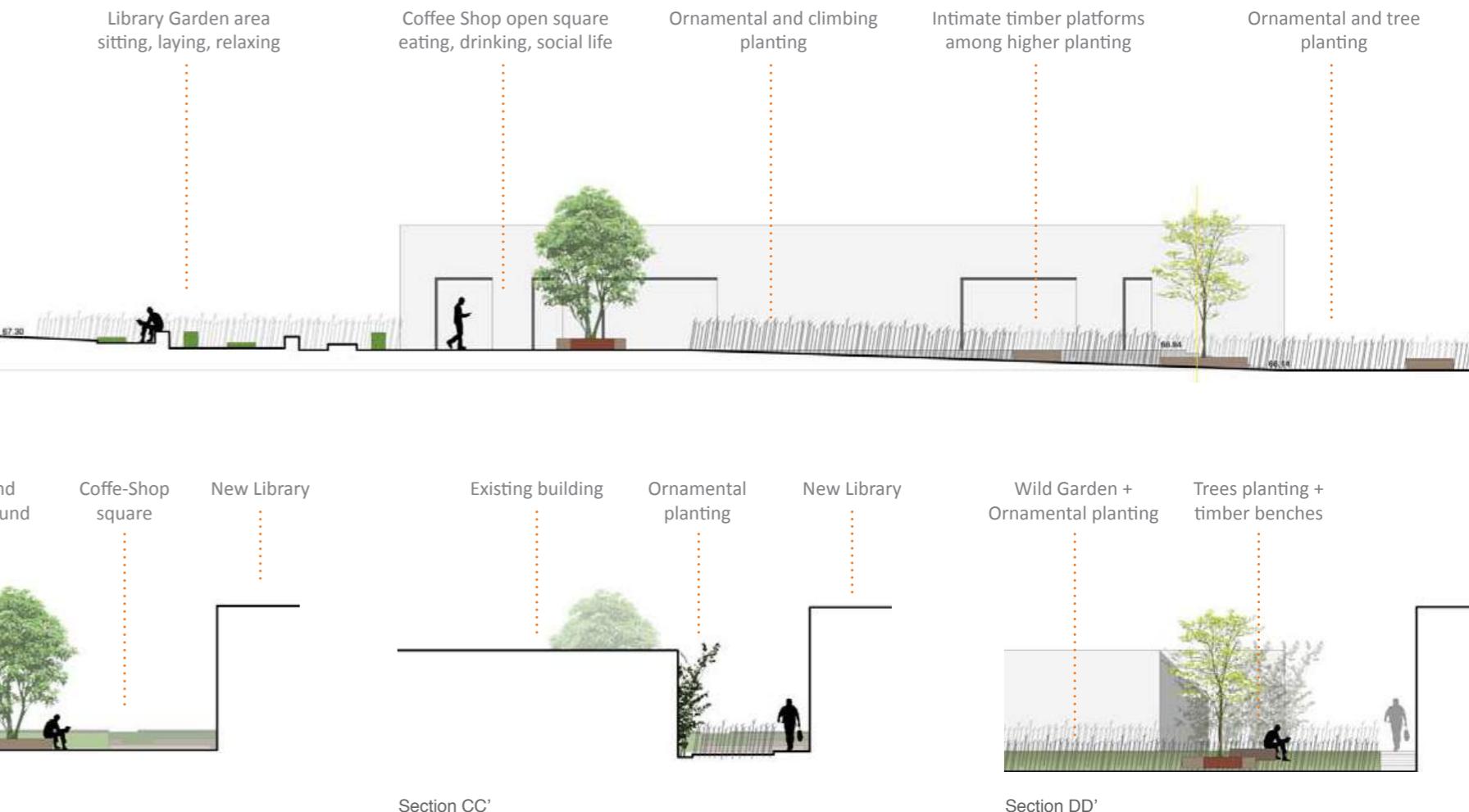
Space and movement

A third section of the space, where timber deck seating and wild planting beds have been designed, provides a higher feeling of intimacy, giving also the chance to be closer to nature and relax.

- Key:
- 1 Outdoor paved seating area
- 2 Linear timber bench seats
- 3 Linear blocks of planting
- 4 Lawn surfaces
- 5 Wild planting beds
- 6 Tree well with timber bench
- 7 Timber deck seats
- 8 Existing planting



General arrangement



Brackenhurst Lane

Library Garden area
sitting, laying, relaxing

Coffee Shop open square
eating, drinking, social life

Ornamental and climbing
planting

Intimate timber platforms
among higher planting

Ornamental and tree
planting

Section AA'

Linear benches and
planting in background

Coffe-Shop
square

New Library

Existing building

Ornamental
planting

New Library

Wild Garden +
Ornamental planting

Trees planting +
timber benches

Section BB'

Section CC'

Section DD'

5.2 // UNIVERSITY PARK & ARBORETUM

University of Nottingham, UK

Concept

The project for a re-design of the University of Nottingham Campus emerges from need of a Landscape Masterplan of the campus and its Arboretum and the integration of the campus activities in the existing park, in order to give an added value to this natural beauty.

Spaces for the support of social life are provided, such as an amphitheater and a considerable number of squares. Additionally, a network of walking routes are also enhanced, along with orientation and interpretive signage to that give all the information to students and visitors.



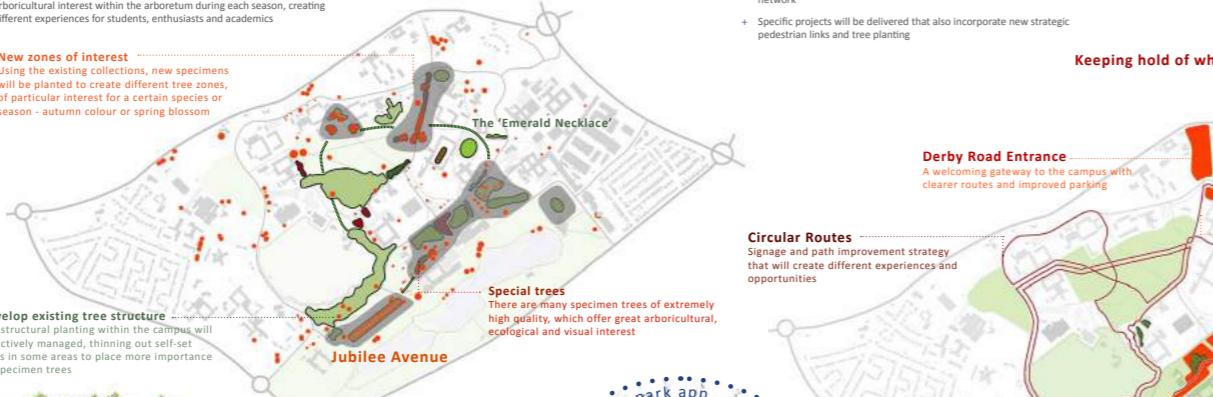
Visualisation of Woodland Theatre

01

establish a world class arboretum

- + The campus will be established as an internationally renowned arboretum
- + The arboretum will be developed over a 10 year period using the existing tree collection as a foundation for different character zones
- + New trails will be created and mapped (see 03) that unveil the huge arbicultural interest within the arboretum during each season, creating different experiences for students, enthusiasts and academics

New zones of interest
Using the existing collections, new specimens will be planted to create different tree zones, of particular interest for a certain species or season - autumn colour or spring blossom



A national collection of oaks
Our proposal is to create an arboretum of international renown and which becomes home to a national collection of Oak (spp Quercus) - a genus also native to Malaysia and China.

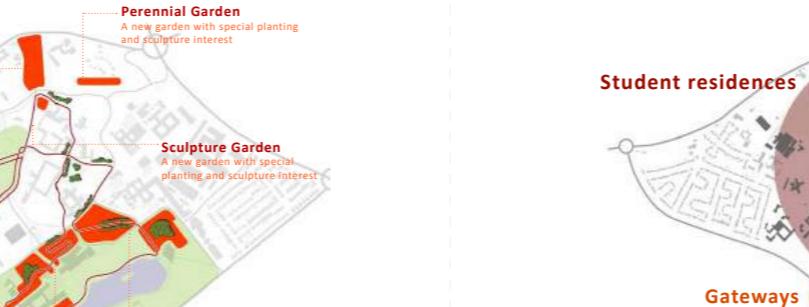
Visualisation of Woodland Theatre

02

working with the beauty of the place

- + University Park is one of the most attractive campuses in the UK - there is much to be celebrated and preserved
- + Landscape intervention will be carried out with a 'light touch' in most places, through management of the arboretum and improvement to the pedestrian network
- + Specific projects will be delivered that also incorporate new strategic pedestrian links and tree planting

Keeping hold of what is good.....



.....while exploiting the potential of key areas

03

well connected and easy to navigate

- + The links between the existing pedestrian gateways, halls of residence and key destinations, particularly the Portland Building will be clearer
- + Each will have a different theme, exploring the most attractive parts of the campus on varying terrain
- + These direct routes will be crossed by radial trails that will provide a more sinuous, scenic route of the campus for people to explore and exercise

Improving existing routes
Existing direct routes between the halls and campus heart will be improved, with a consistent material palette and a coordinated approach to signage

Pedestrian gateways
Some of the key entry points into the campus, such as the Derby Road entrance and Lakeside pavilion will be improved.

Challenge trail
Up hills and down through the woods, this is a challenge running and walking route for improving fitness. There will be distance markers and specific features along its path

Student residences

Gateway

Heart of the campus

Lakeview trail
Linking the campus with Highfields Park, with great views of the lake

Coordinated signage
As part of the development of the arboretum, wayfinding will be improved through a coordinated signage strategy, mapping new trails and providing information on specific parts of the arboretum

Users will be used by two distinct groups
the university's students and staff

visitors

living

fitness

learning

exploring the arboretum

arts and culture

General arrangement

Botanical trail
A smoother circular route that combines each of the university's gardens for the first time, as well as places of seasonal botanic interest such as the wildflower meadow around The Downs

Reconfigured parking

New footpath

New pedestrian entrance space

New footpath

Reconfigured parking

New footpath

New pedestrian entrance space

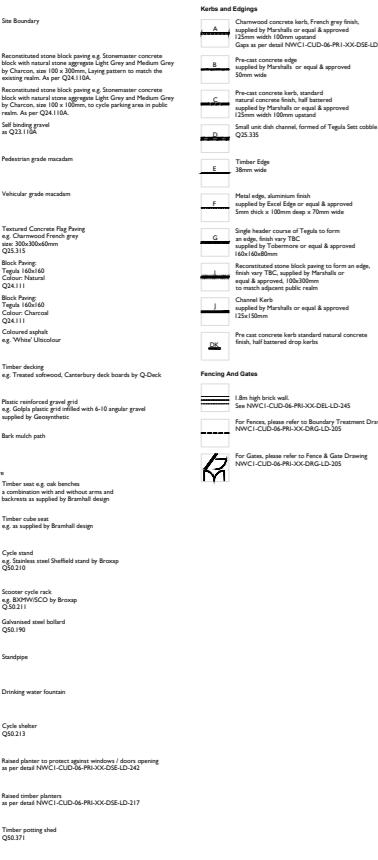
New footpath

Reconfigured parking

New footpath

5.3 // NORTH WEST CAMBRIDGE PRIMARY SCHOOL

NWC Development, University of Cambridge, UK



Implementation project

Context

As part of the NWC Development of the University of Cambridge, where a whole residential estate being currently built, the Primary School is one of the first buildings to be completed on site.

As author of the architectural project,

Marks Barfield Architects comissioned the design of the open and landscaped spaces to Colour Urban Design.

Design

To tie in with the building proposal, the

landscape proposal follows a radial de-

sign, where the courtyard in the centre

provides an amphitheater, lawns and

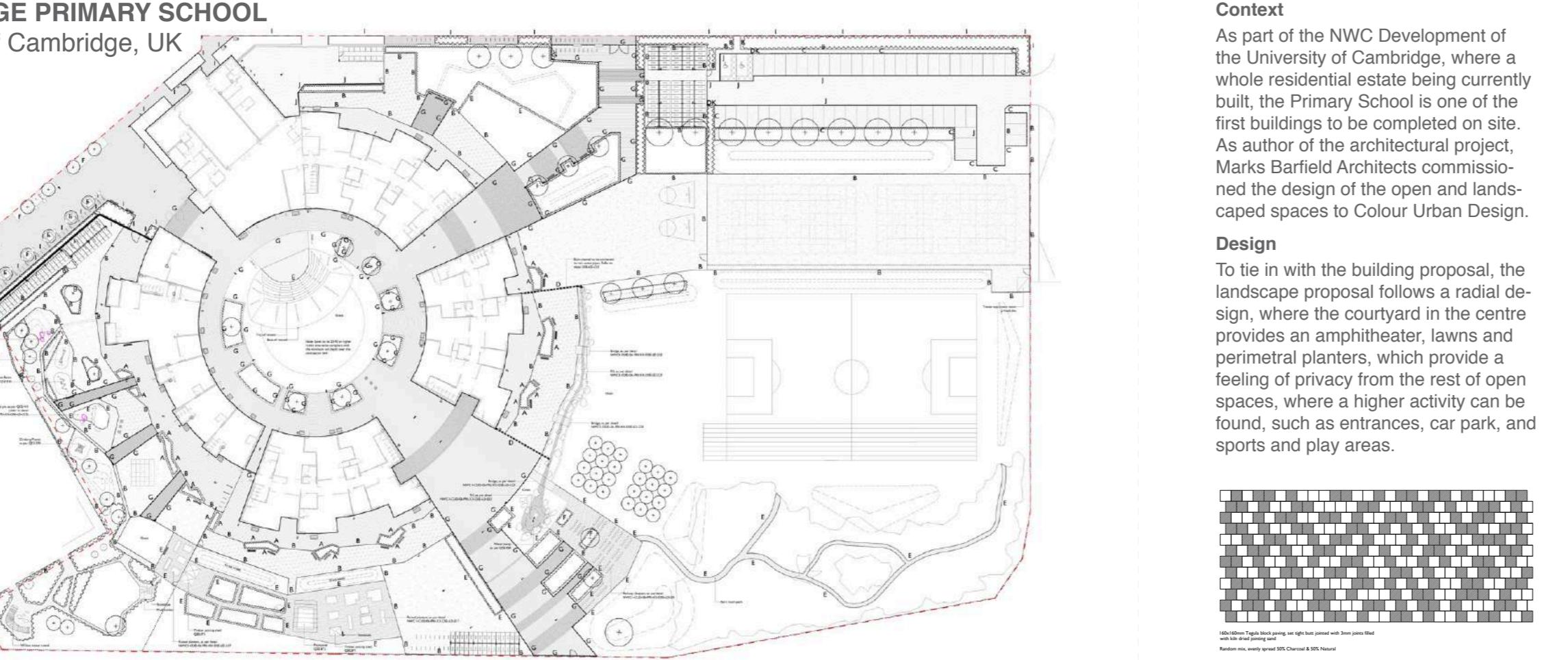
perimetral planters, which provide a

feeling of privacy from the rest of open

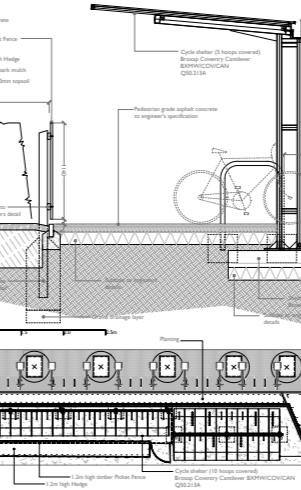
spaces, where a higher activity can be

found, such as entrances, car park, and

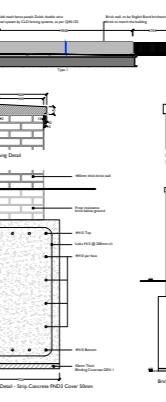
sports and play areas.



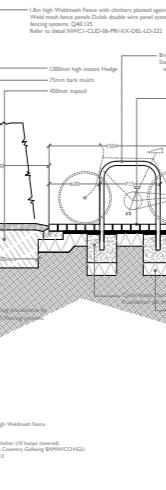
Implementation project



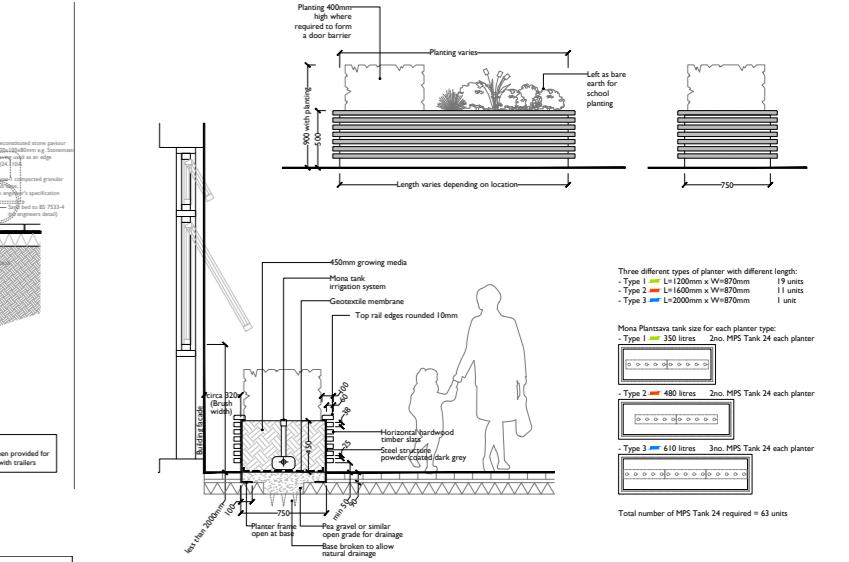
Detail design - cycle stands and shelter



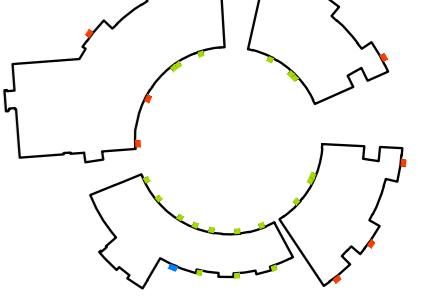
Detail design - paving



Detail design - boundary wall



Detail design - deterrent planters



Detail design - deterrent planters key plan

6 // LANDSCAPE AND VISUAL IMPACT ASSESSMENTS

6.1 // LVIA CUDDYHOUSE ROAD Fife, Scotland UK

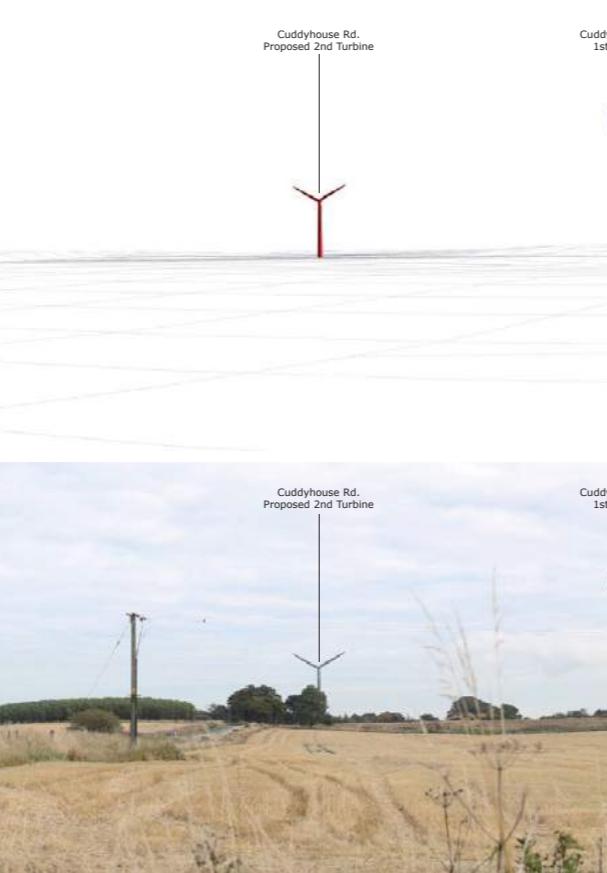
Landscape and Visual Impact Assessment

The assessed project comprises the construction of a turbine in Fife, whose visual impact has been assessed from a number of points, according to the principles established by the Scottish Government for the production of a LVIA.



Figure 11.1
VIEWPOINT 2: Cuddyhouse Road, near Kingseat

| | | | | | |
|--------------------|-----------------|-----------------------------|-------------------------|----------------|-----------------------|
| OS reference: | 313011E 690599N | Horizontal field of view: | 90° (planar projection) | Camera: | Canon EOS 5D MKIII |
| Eye level: | 175 m AOD | Principal distance: | 812.5 mm | Lens: | Canon 50mm f/1.2L USM |
| Direction of view: | 66° NE | Paper size: | 420 x 297 (A3) | Date and time: | 09/10/2015 11.30 |
| Nearest turbine: | 0.60 km | Correct printed image size: | 390 x 65 mm (each) | | |



| | | | | | |
|--------------------|-----------------|---------------------------|---------------------------|----------------|-----------------------|
| OS reference: | 313011E 690599N | Horizontal field of view: | 53.5° (planar projection) | Camera: | Canon EOS 5D MKIII |
| Eye level: | 175 m AOD | Principal distance: | 812.5 mm | Lens: | Canon 50mm f/1.2L USM |
| Direction of view: | 66° NE | Paper size: | 420 x 297 (A3) | Date and time: | 09/10/2015 11.30 |

Figure 11.2
VIEWPOINT 2: Cuddyhouse Road, near Kingseat

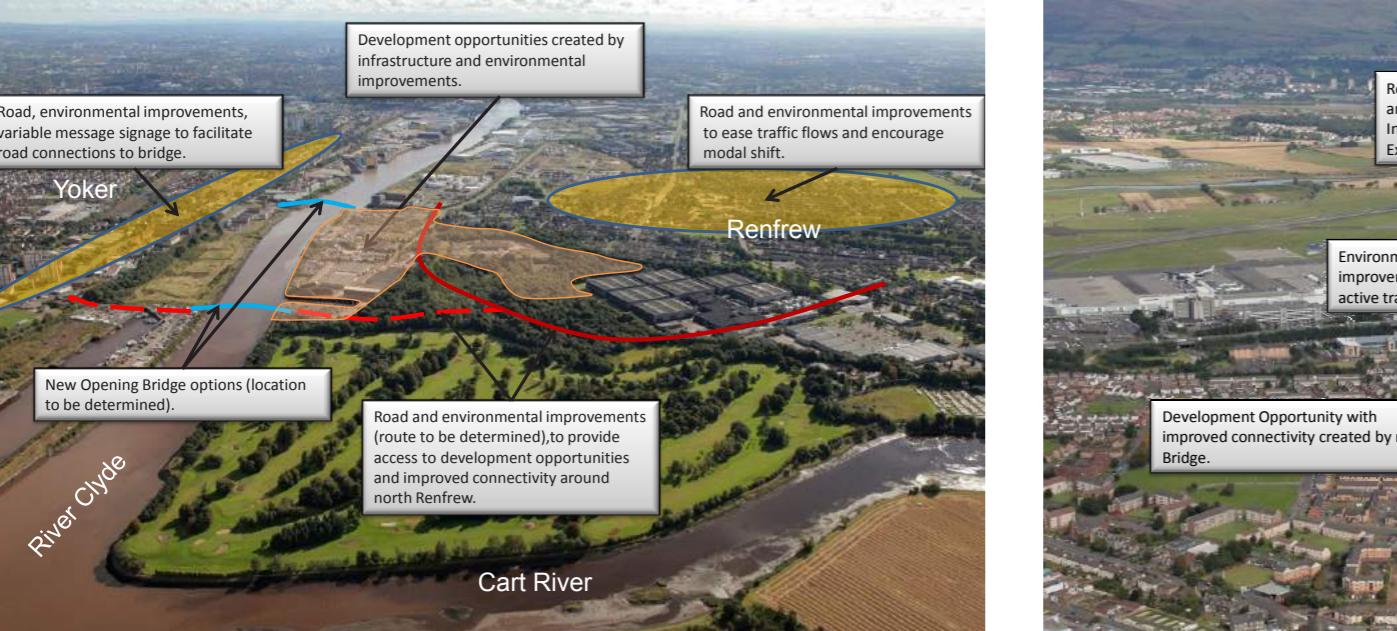


6.2 // LVIA CITY DEALS

Glasgow City Region City Deals, Renfrew, Scotland UK

Context

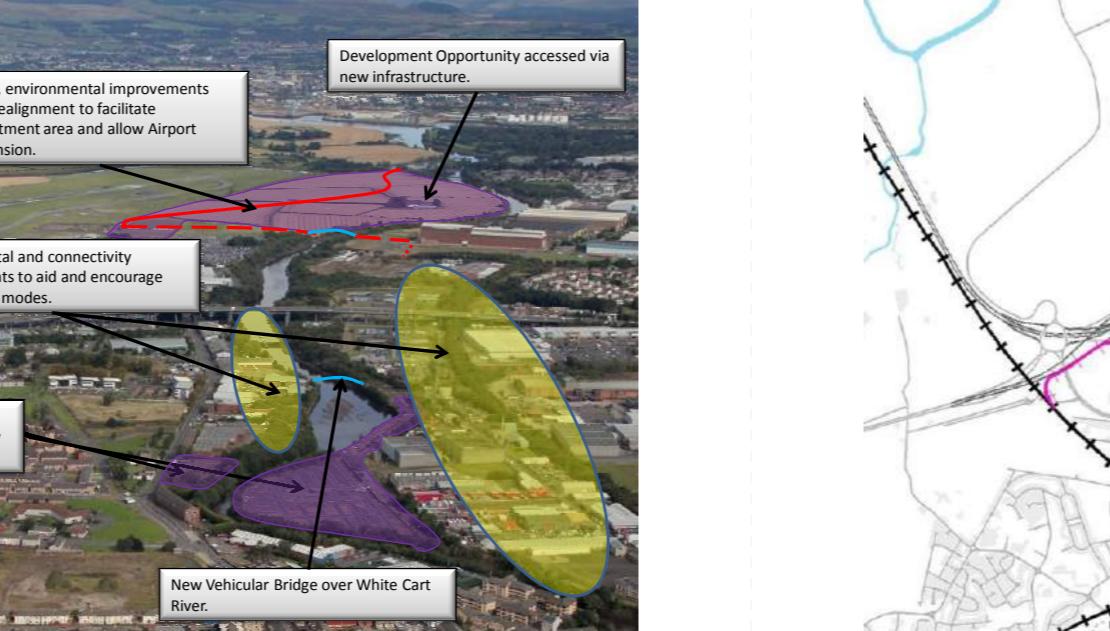
As part of the proposals included in the Glasgow City Region City Deals, a number of new highway links are being designed to improve the connections between the City of Glasgow, Renfrew, and the Glasgow Airport.



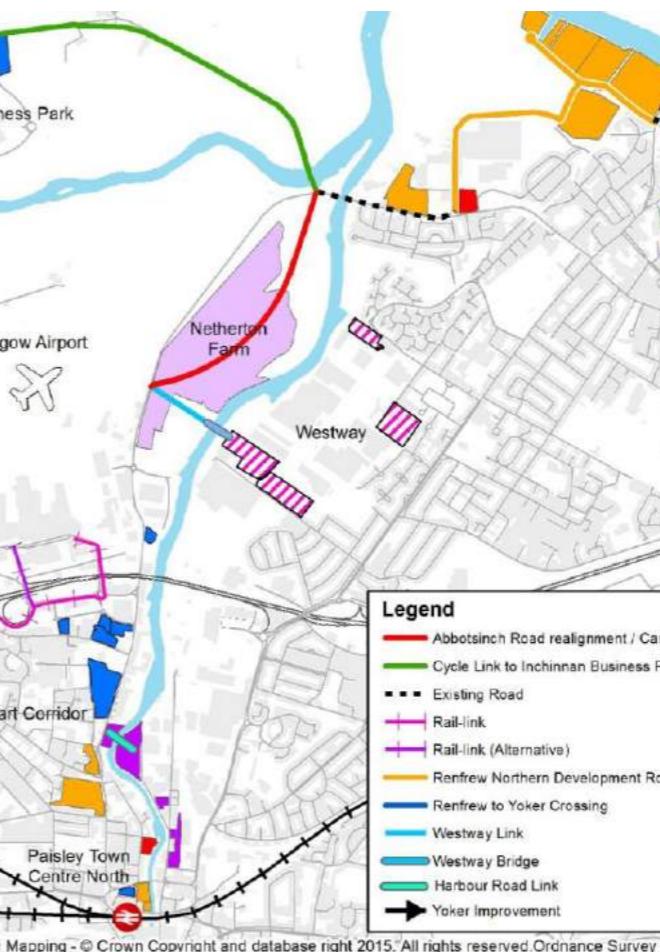
Clyde Waterfront & Renfrew Riverside - Project Overview

Landscape and Visual Impact Assessment

Various options proposed for new highways and proposed bridges are to be assessed before the project goes on the next stage. Not only are the airport land and industrial areas affected, but also residential estates, public realm and a golf course are.



Glasgow Airport Investment Area - Project Overview (May 2015)



Draft Masterplan 2015 - Project Strategy



Draft Masterplan 2015 - Project Strategy

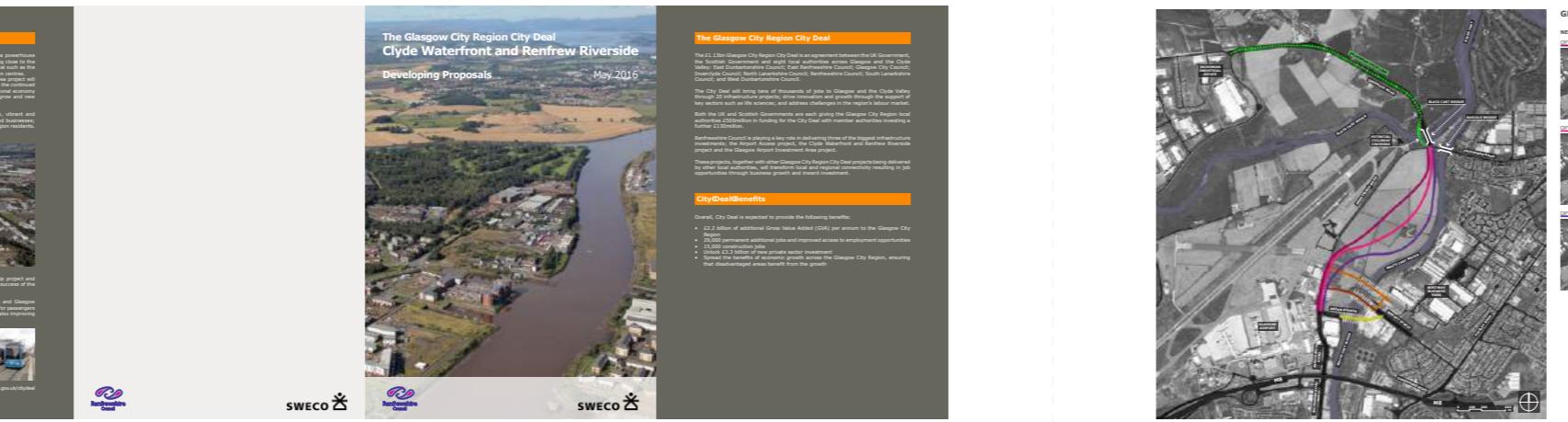
7 // PUBLIC CONSULTATION

7.1 // CITY DEALS PUBLIC CONSULTATION

Glasgow City Region City Deals, Renfrew, UK

Public consultation

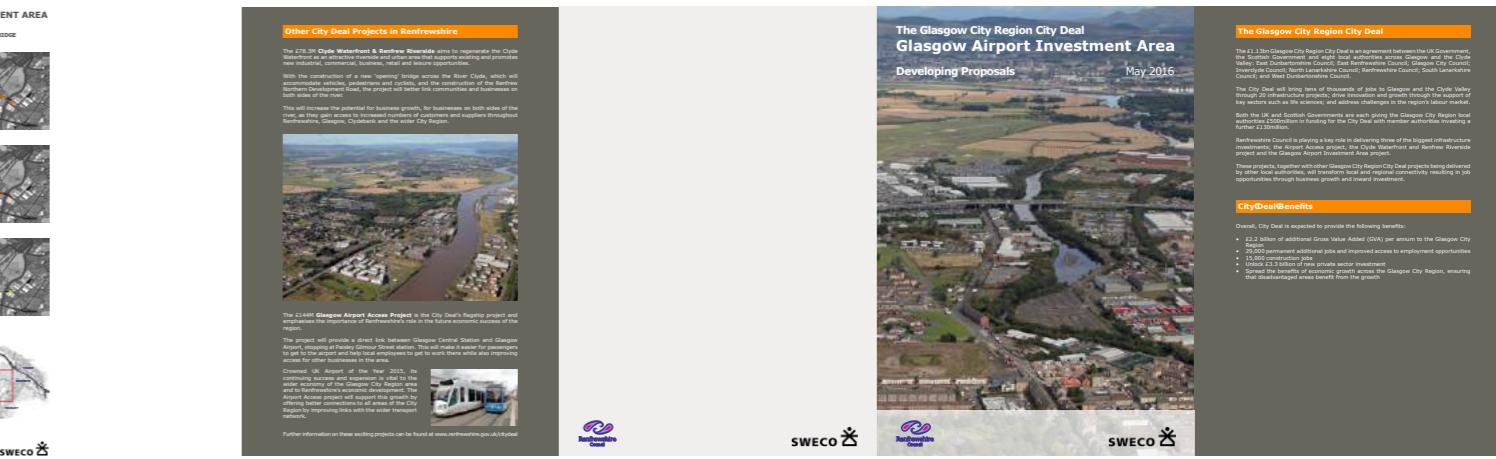
In order to organise the public consultation to show the optioneering of highways en bridges, a number of exhibition boards and leaflets have been produced, so local politicians, stakeholders and visitors can express their opinions and concerns.



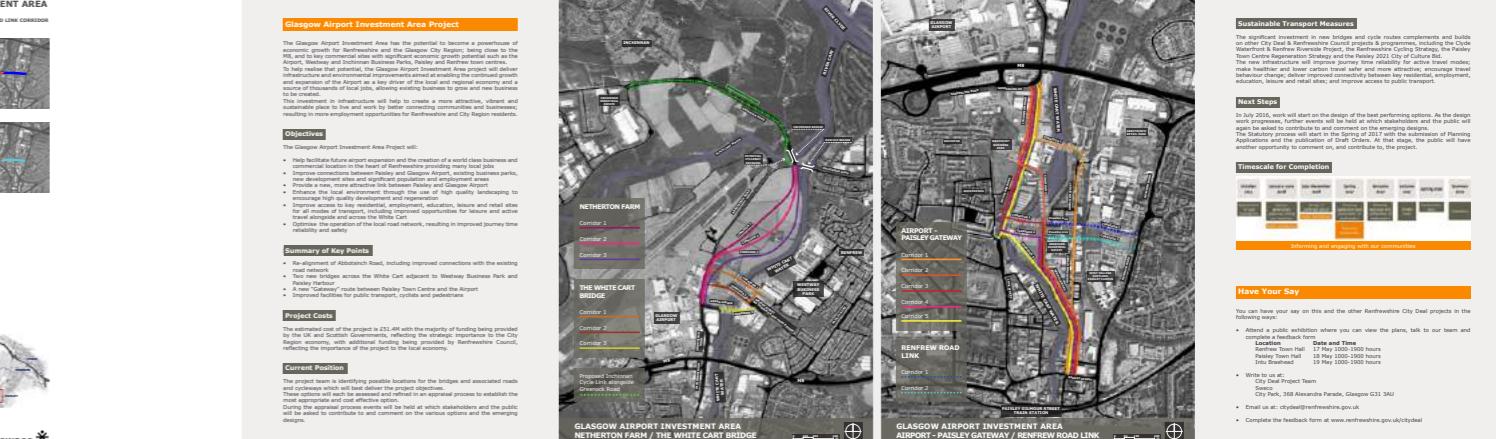
Clyde Waterfront and Renfrew Riverside leaflet 1



Clyde Waterfront and Renfrew Riverside leaflet 2



Glasgow Airport Investment Area North consultation board



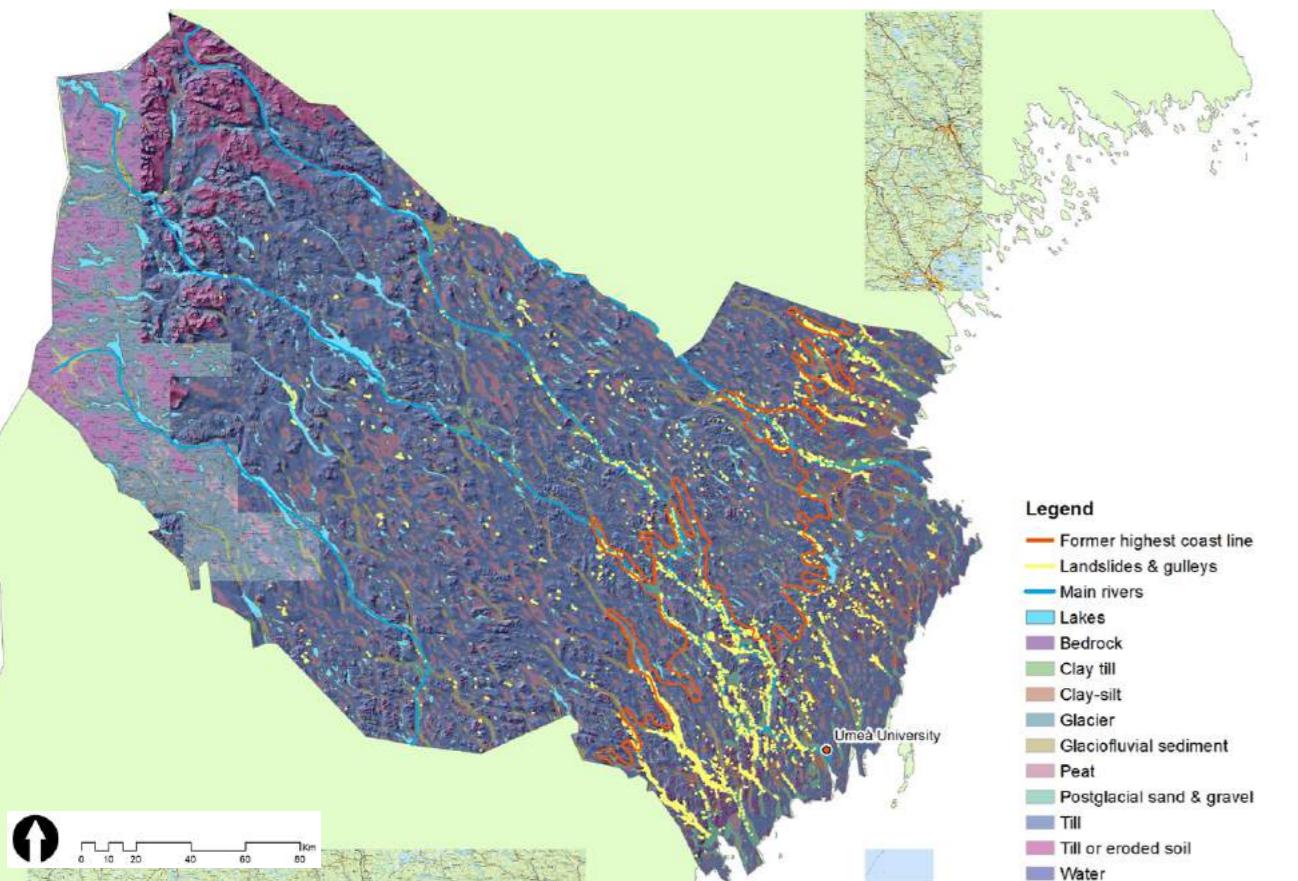
Glasgow Airport Investment Area leaflet 1

Glasgow Airport Investment Area leaflet 2

8 // GIS AND GEOSPATIAL DATA ANALYSIS

8.1 // ANALYSIS OF FACTORS FOR THE EMERGENCE OF LANDSLIDES AND GULLIES

County of Västerbotten, Sweden



Notes

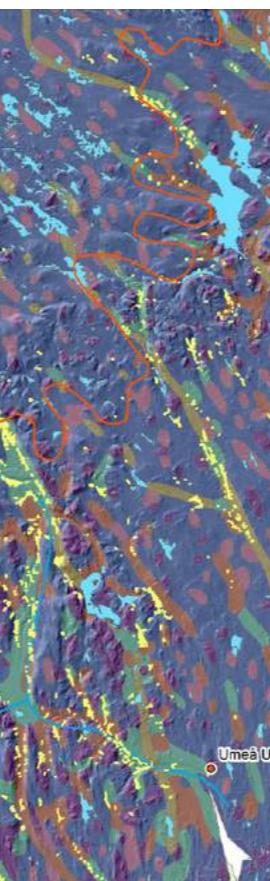
At regional scale, there are a number of factors that can potentially influence the distribution of landslides and gulleys across the county of Västerbotten.

On the one hand, clusters of landslides and gulleys can be observed in areas that are located below the former highest coast line, i.e. those areas which used to be below the sea level before the land uplift.

On the other, the adjacency to water courses seems to be a factor that increases the possibility of presence of landslides and gulleys, since these can be found along river courses and lakes on both sides of the former highest coast line.

| | |
|------------------|-------------------------------------|
| Title: | Landslides and gulleys location map |
| Drawing Nr: | Lab1.3 - Map1 |
| Revision / Date: | Rev. 01 / First Issue / 2018.01.20 |

| | |
|--------------------|--|
| Author: | Pedro J. Muñoz Rodríguez |
| Data source: | LAB1 data from GIS1 course @ Umeå University |
| Coordinate system: | SWEREF99_TM |
| Scale: | 1:1.250.000 @ A3L |



Notes

At a closer scale, it can be observed that the areas where landslides and gulleys are located match certain types of surficial deposits, which means that these areas have suffered geological processes that make them different to other adjacent areas across the county of Västerbotten.

Below the former highest coast line, landslides and gulleys are predominantly located in areas with surficial deposits identified as post-glacial sand & gravel, glacio-fluvial sediment, and clay-silt.

Although with significantly less intensity, landslides and gulleys are also present over the former highest coast line. In this case they are normally located over postglacial sand & gravel, and glaciofluvial sediments. Clay-silt deposits are only present below the former highest coast line. These areas emerged from the sea are probably flatter and rivers have lower speed along these final segments, which make it suitable for these types of sediments.

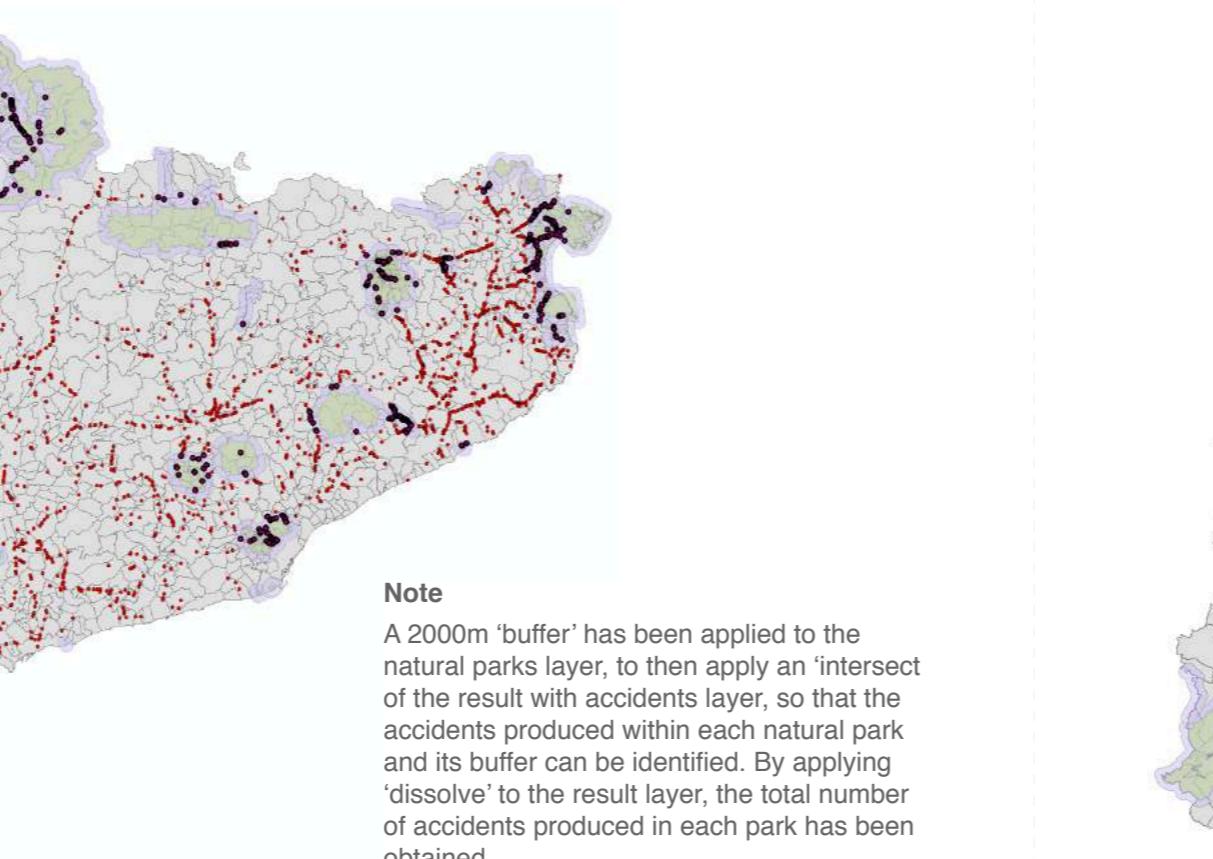
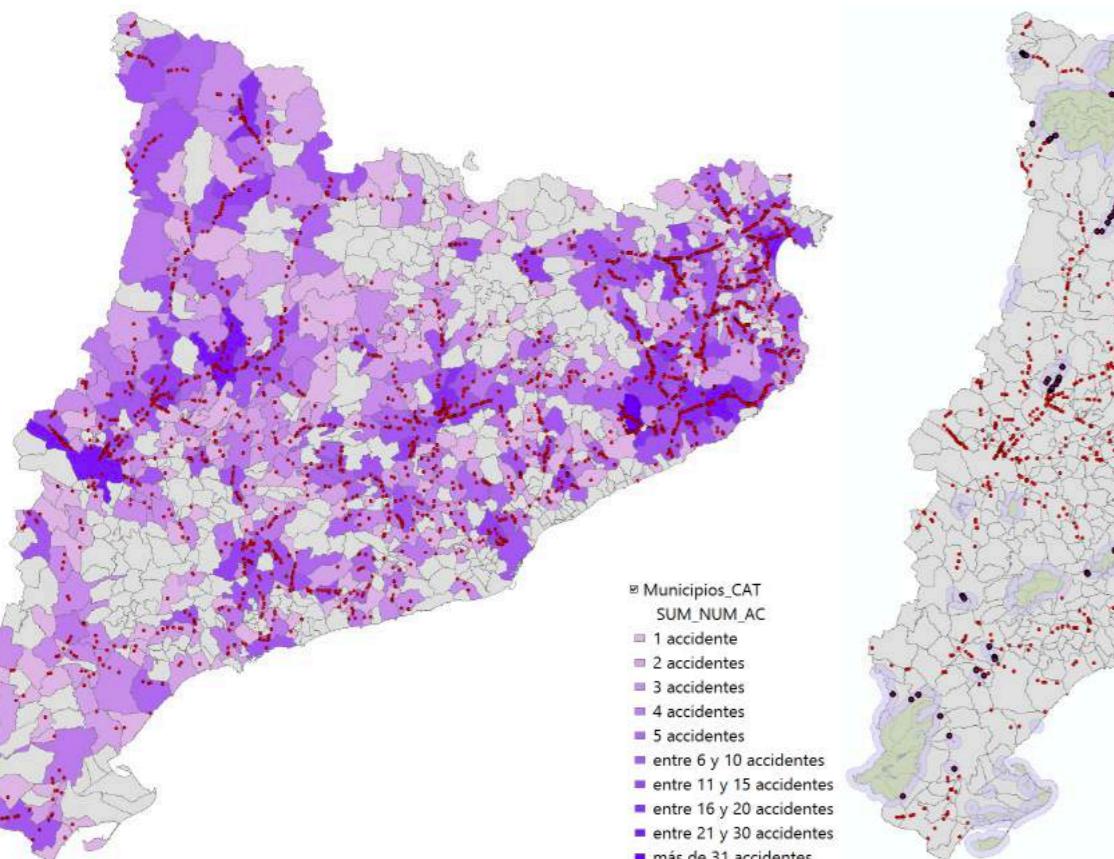
According to this overlaid data, the hypothesis of the erosion produced by water courses as the main factor for the emergence of landslides and gulleys could be considered for further assessment.

| | |
|--------------------|--|
| Title: | Landslides and gulleys distribution map |
| Drawing Nr: | Lab1.3 - Map2 |
| Revision / Date: | Rev. 01 / First Issue / 2018.01.25 |
| Author: | Pedro J. Muñoz Rodríguez |
| Data source: | LAB1 data from GIS1 course @ Umeå University |
| Coordinate system: | SWEREF99_TM |
| Scale: | 1:400.000 @ A3L |



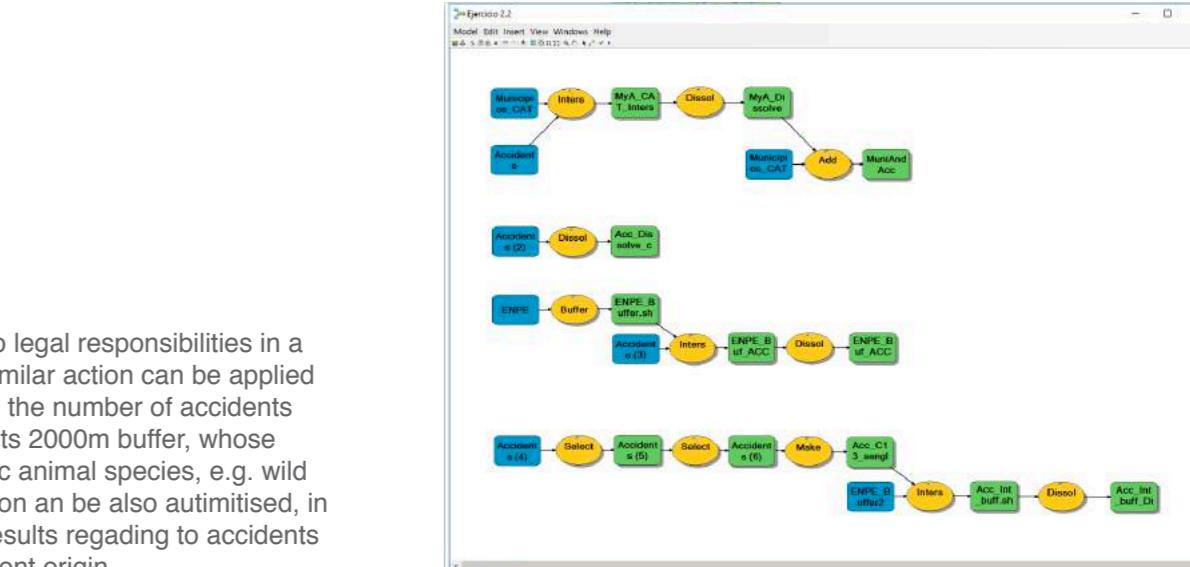
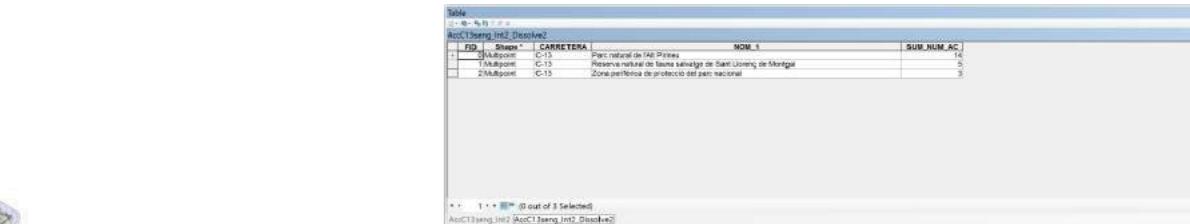
2 // ANALYSIS OF ACCIDENT BLACK SPOTS AND THEIR ORIGIN

atalonia



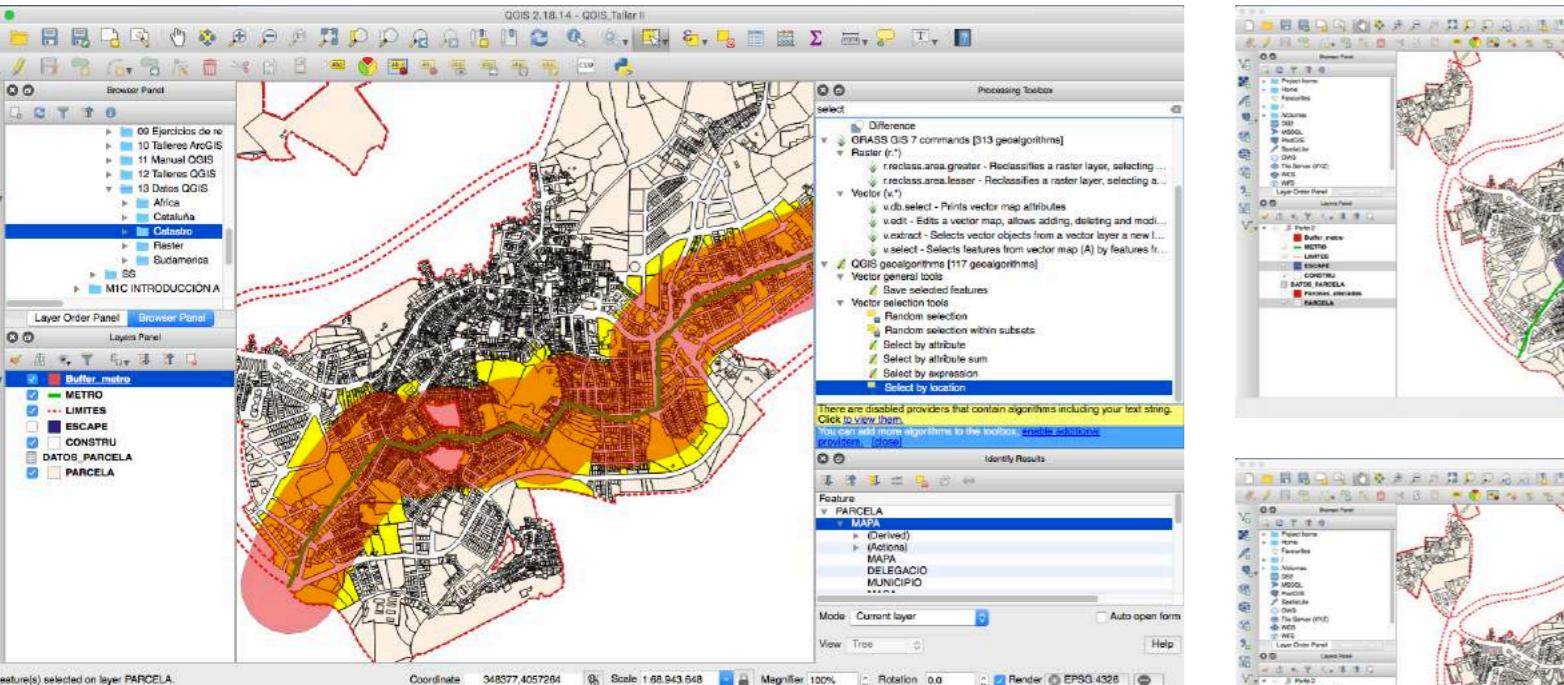
4

This map illustrates the geographic distribution of the Eastern Chipmunk (Tamias striatus) across the eastern United States. The core distribution is shown in gray, with a purple border. A green shaded area in the southeastern part of the range represents the subspecies Tamias striatus amoenus. State boundaries are indicated by thin black lines.



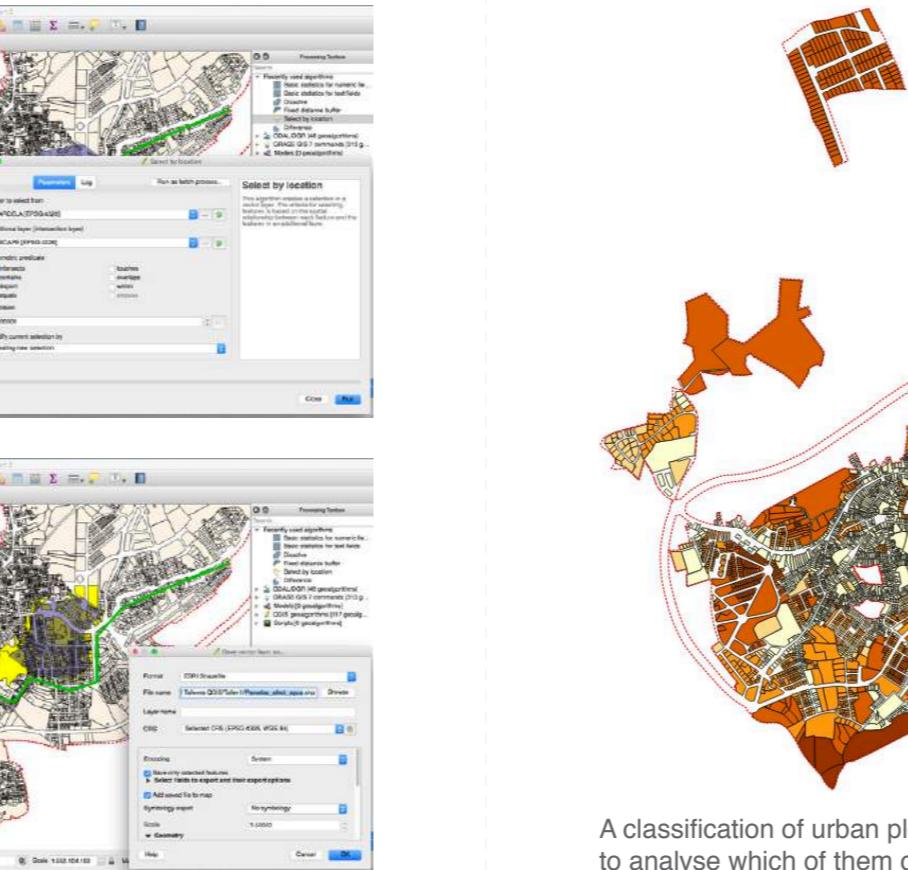
8.3 // EFFECTS OF FUTURE INFRASTRUCTURE AND ANALYSIS OF CADASTRAL VALUES

Catalonia

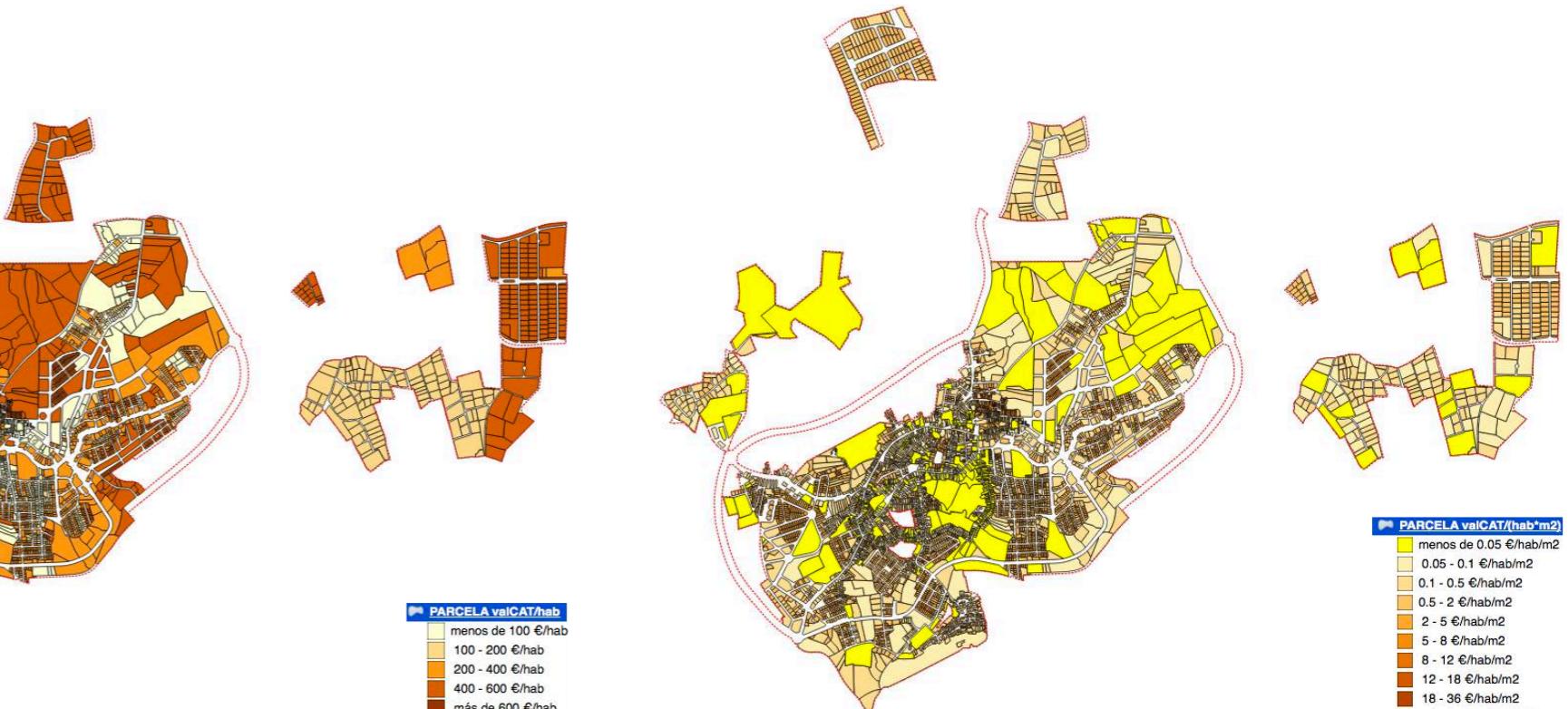


Given the new local project for a future underground suburban train line, an analysis of the urban plots and number of inhabitants affected by its construction has been commissioned.

By making a 150m buffer to the train line layer, to then make an intersection of its result with the urban plots layer, the affected land can be graphically observed.



A classification of urban plots according to the cadastral value can be made in order to analyse which of them could have local tax adjustments.



Nonetheless, significantly fairer tax adjustments could be implemented by analysing which the cadastral value per inhabitant is.

8.4 // OPTIMISATION OF WATER SUPPLY WELLS IN A SEVERE DROUGHT EVENT

Sierra Leone

