LA 537: MLA Studio II

WATERSHED ANALYSIS & COMMUNITY DESIGN

Phases Section

For the different phrases, this project has the different vertical design strategy. And the different vertical design represents the different experience of the landscape view. So that, when visitors walk through the whole site, they would have different experience through the change of the landscape design.

Phase I

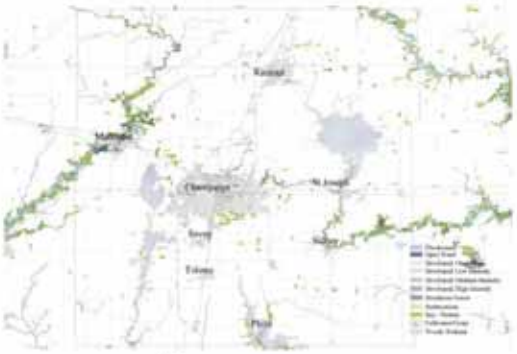
Phase II

Phase III

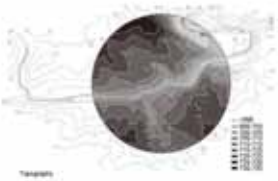
Phase IV

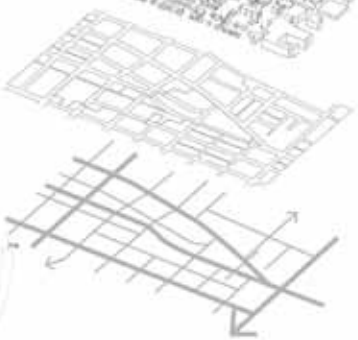
SITE ANALYSIS

For the site analysis, this project analysis from large scale, Champaign watersheds analysis, to small-scale, site analysis. In the scale of Champaign watersheds analysis, this project analysis land use, soil type, soil erosion, hydrology, and wetland, these would show the whole water system of the Champaign County. In the medium scale, this project analysis the green space corridor through the Champaign, and the site would be the connection through the green space corridor of Champaign. In the small scale, the project analysis the facilities, buildings, districts, roads and creek of the site.



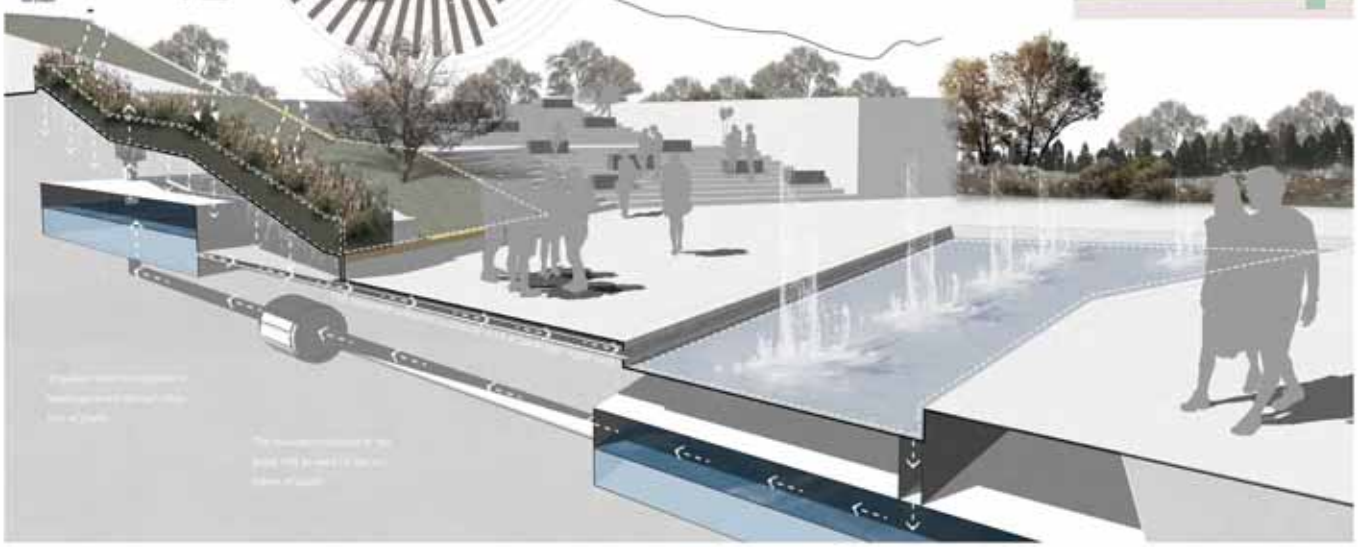
Buildings





Districts

Roads



LA 537: MLA Studio II

WATERSHED ANALYSIS & COMMUNITY DESIGN

This project focuses on three characteristics of the site, flood control, activity, and transportation.

The concept of FLOOD CONTROL, which represents using a different way to control the flood of boneyard creek. It would be formed different view by the different flood level. When boneyard creek water in the low level, the walking path which closes to the river is exposed, so that people would approach water closely; if the boneyard creek water in the medium level, the biking path would be exposed; if the water in the high level, the walking path on the top would just be exposed. In the different water level, it would shape different path and different landscape view.

The concept of ACTIVITY, which represents adding community activities. By connecting to the other three park around the site, crystal lake park, leal park and scoot park, it forms a wave of landscape type, lawn-forest-lawn-wetland-river-lawn-forest, which would form more activity space for communities and add a connection between communities. Moreover, by connecting all of these parks, it shapes a green corridor for boneyard creek.

The concept of TRANSPORTATION, which represents improving the condition of "Green Commuting", biking and walking environment. Moreover, it enhances the connection through boneyard creek. By planning the routes for the bicycle and walking, the concept also creates some of the major notes, such as park or ecological parking lot, which would strengthen the landscape view beside the routes.

PLAN

SCENARIO SECTION

Low Level Water

Medium Level Water

High Level Water

TYPOLOGY

Forest

Walking Near the Water

Lawn

Walking on the Side

Wetland & River

Walking Beyond the Water

DAYLIGHT

BONEYARD CREEK IN DOWNTOWN URBANA

Studio LA587 Zeyun Zheng Directed by Katherine Kraszewska

N

SCALE 1 : 100

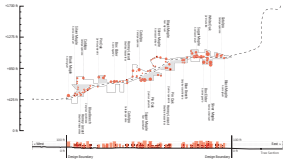
SECTION A SCALE 1:10

SECTION B SCALE 1:10

SECTION C SCALE 1:10

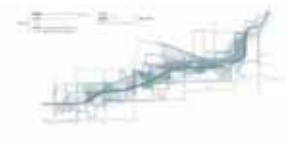
Circulation & Destination

Vegetation

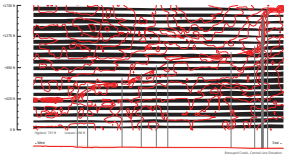


Sewage

Constrains & Opportunities

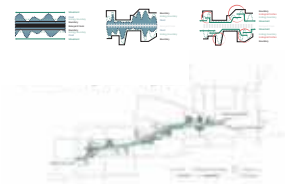


Topography

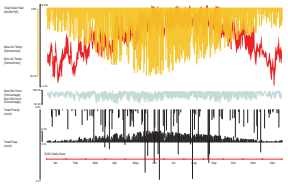


Water Quality

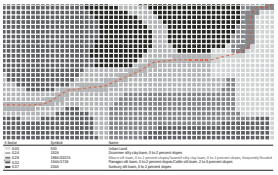
Concept & Strategy



Climate



Soil Erosion



Design Description

The site is a segment of the Boneyard Creek in downtown Urbana, Champaign county, IL. It sits in the residential area with some neighborhood business along the creek, linking the campus zone to the city center from west to east.

The site is almost a hidden place covered by wild vegetation, which is always out of citizens' horizon. Thus, the proposal of the design is to daylight the creek and bring it back to citizens' sight. The design widens the creek corridor and rearrange the planting. Enabling the creek to be exposed to the light and attract more attention is the first meaning of "daylight".

The site has serious problems with the water ecology: poor watet quality, heavy sediments, and uncontrollable flood. To improve the water environment, constructed wetlands, bio-swales, and small islands are applied to the site to purify the water and create ecological environment for living things. The boundary of the creek is redesigned to be more convoluted. The metal retaining wall changes to different types of ecologial revetments. This is the second stage of "daylight".

The site is inaccessible, as the mesh fence and metal wall keep people and other living animals away. The design increases the accessbility to the creek, so as to provide more activities with water environment for the local community. More entrances are added and the path is continuously connected to both ends of the segment. People can reach the water by stepping down and the barrier will be no longer exist, which is the third part of "datlight".

SECTION D SCALE 1:10

Boneyard Creek

Parking Lots

Green Space

Hard Texture

Boneyard Creek

Wetland

Hearing the river

The creek can not only be daylighted by opening to be seen, but also can be heared. The maintaing wall is made by rocks, which water could go through and create nature sound. The sound of nature could help peple relax and enjoy the moment.

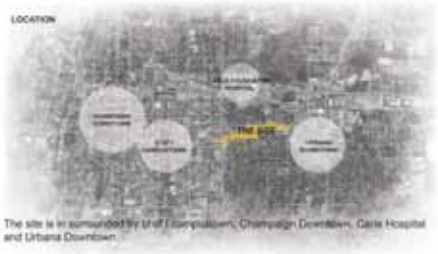
Flooding -- Problem to Oppotunitis

By increasing the width of the creek, and creating a wetland between the boneyard creek and green spaces, the site becomes less stressful when it comes to flooding. What's more, it creates a new hibitat for multiple spices.

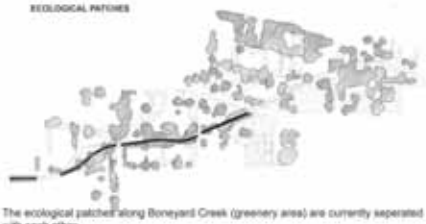
LA 537: MLA STUDIO 2

BONEYARD CREEK MASTER PLAN — URBANA WATERFRONT PARK

NING ZHANG



The site is in surrounded by U of I campustown, Champaign Downtown, Carle Hospital and Urbana Downtown.

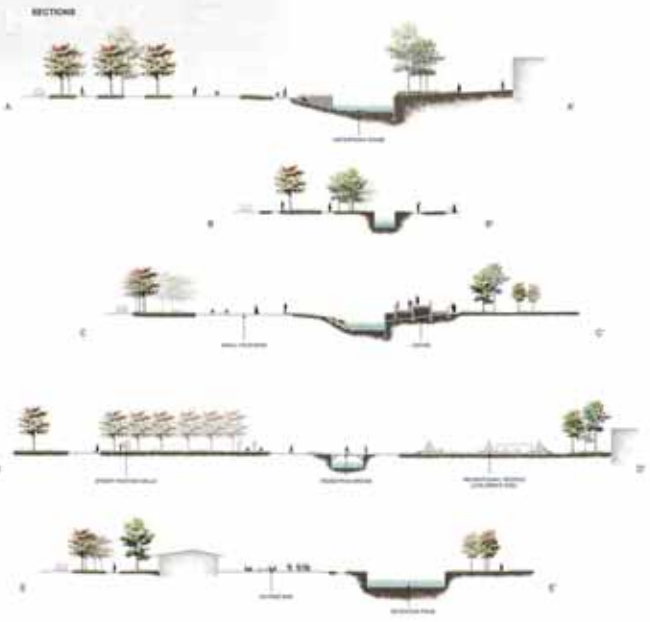


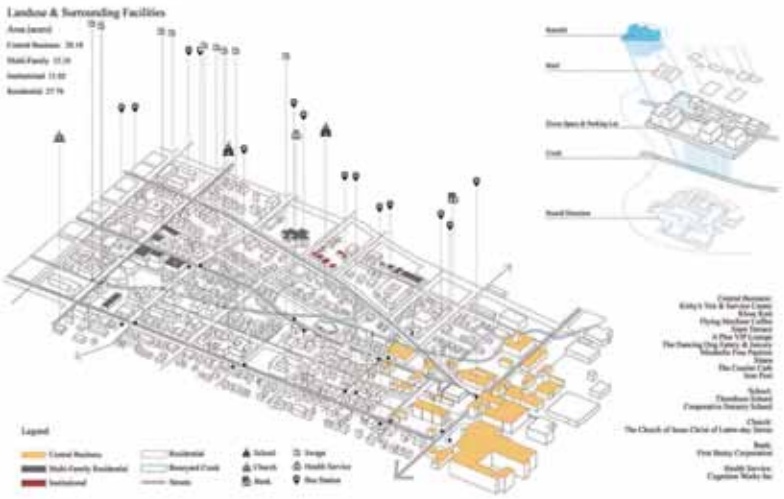
The ecological patches along Boneyard Creek (greenery area) are currently seperated with each other

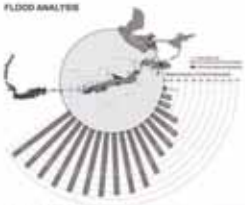
The parking lots within or near the site are obviously over the needs of residents there. Some real estates are out of use and locating too close to the creek (flooding risk).

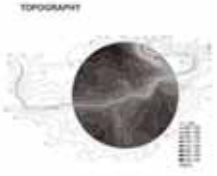
The site is located at the west neighborhood of Urbana City, Illinois, next to U of I campus town. The purpose of the design is to provide a energetic and ecological-friendly waterfront park to the citizens of Urbana and enhance the connection between campus town and Urbana downtown. Currently, the site is possessed as seperated private properties, in the forms of apartments, private houses and businesses. Boneyard creek flows from west to east through the site. The creek has been chanalized several years ago. some part of it are now staying underground, covered by roads and parking lots.

By this design, the designer intend to address current issues by removing some parking lots and real estates that is out of use or over the real needs of the owner of waterfront properties, daylighting part of the underground creek to add more habitats to the local species, broadening the eastern side of the creek for larger capacity and improving facilities to create public activity spaces.









ECO-CORRIDOR

_Boneyard Creek

The site is located in City Urbana, and is part of the vermilion watershed, which is a ecological corridor, and a path for animal migration. The problems that our site is facing are that the creek banks are covered with sheet pile walls and the bottom of the creek is concrete, there are little habitats for the native species like fish and pollinators. And for the local residences, the space between the creek and house is too narrow, and a lot parking lots near the houses, the creek mainly serves the function of draining. Little aesthetic value.

The master plan is intended to transform the Boneyard creek from a highly urbanized ditch into a place not only for the nearby community to enjoy but also a habitat that attracts native species.

Segment 1 is the main entrance of the site, connecting the creek from campus area. considering there is a pit on site for flooding issue, I change it into a rain garden by planting native plants that could tolerate wet conditions.

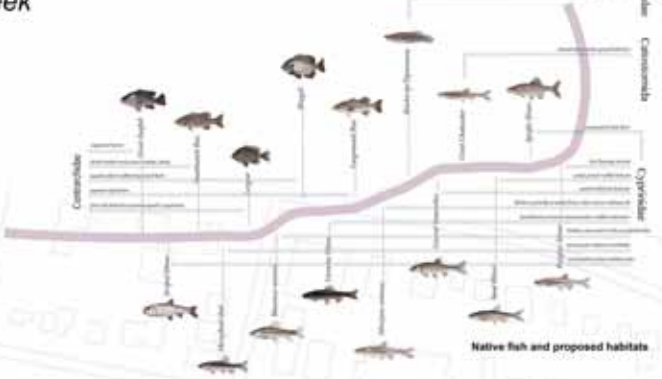
Segment 2 is more about native species habitats, sheet pile walls will be removed along the creek, in order to solve the problem of erosion and enhance the biodiversity along the creek, the creek bank will be terraced and will decorated with native plant species, and change the concrete creek bottom into shortcuts places where fish could lay their eggs, and create habitats.

Segment 3 is a linear park for local communities, considering the budget, instead of daylighting the creek underneath, but change part of the big parking lot into a linear shape path that could function as the creek, and set programming like ping pong, chess playing, reading, jogging. For the parking lot, replacing the impervious paving with permious paving will decrease the run offs that go into the creek.

Segment 4, the space between creek and house is relatively narrow, I remove some of the build ings, widen the crees, planting native herbs and shrubs, creating fish habitats along the creek, and creating stairs for people to be closer to the creek, so they can get the experience of walking next to the creek, and for future phase, it could be a public path for the community and an area connecting the boneyard creek on the south side.

Ecosystem migration

Flood zone



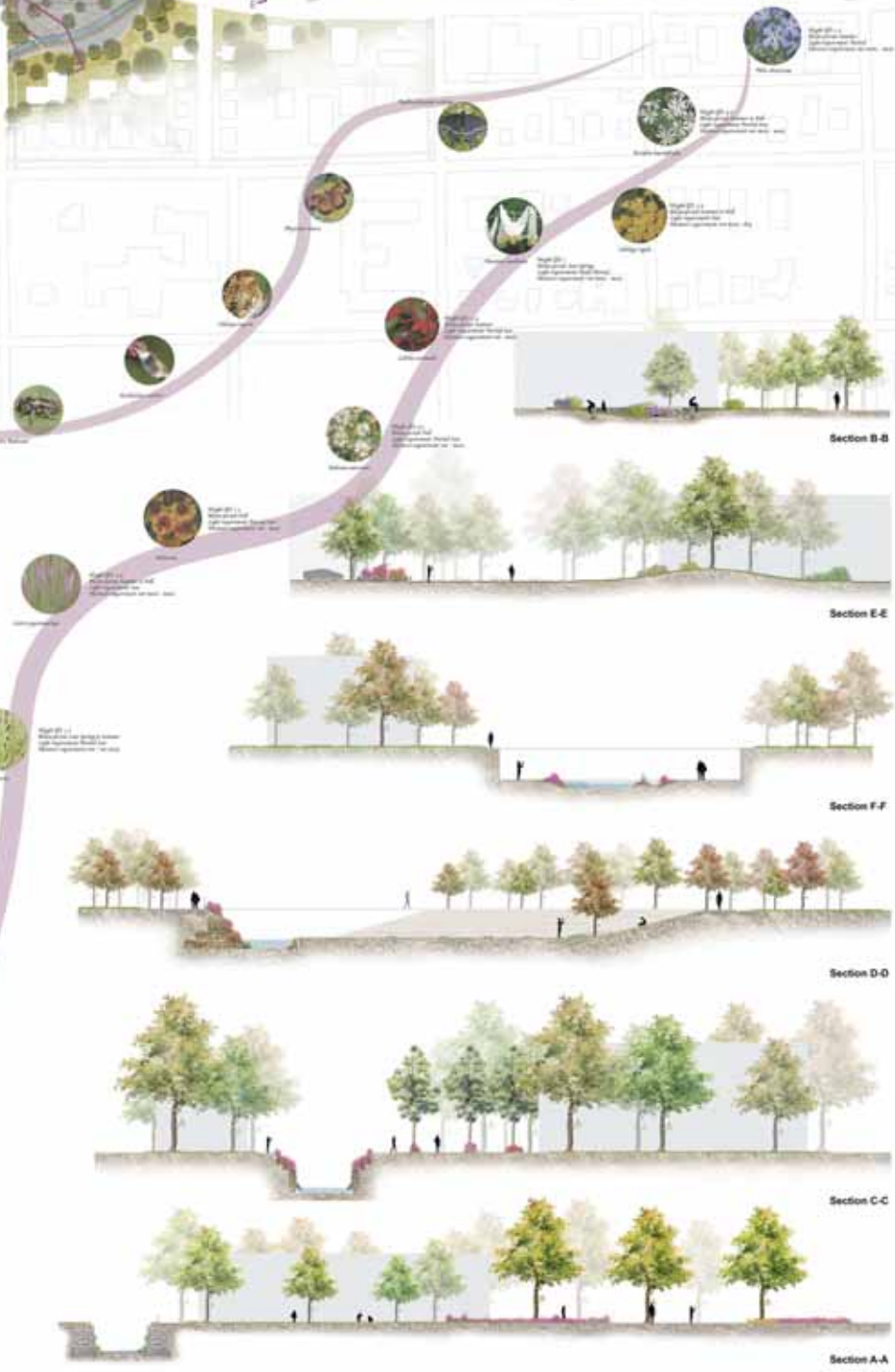
Access and Destination

Idea and Concept

Perspective A

Perspective B

Perspective C



Section B-B

Section E-E

Section F-F

Section D-D

Section C-C

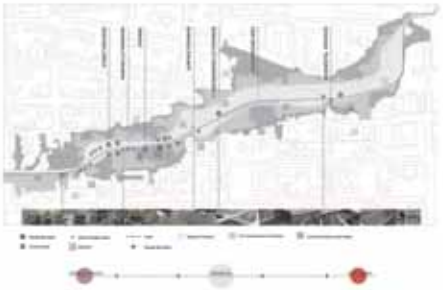
Section A-A

THE REVIVAL OF BONEYARD CREEK

Boneyard Creek is a 3.5-mile-long waterway that drains much of the cities of Champaign and Urbana, Illinois. The site is located at a tributary of the Saline Branch of the Salt Fork Vermilion River, between the West Main street and South Lincoln Street.

Boneyard is a highly channelized stream, running in a slit trench. The obvious reasons for hindering boneyard becoming an important part of open green spaces in Urbana city are flooding, sediment, water pollution and less access for people.The Boneyard has had a very long history of flooding and people attempt to get the flooding under control by channelizing to improve drainage, which in the long run made the issue worse. Raw sewage, garbage and industrial waste being dumped into the creek was the cause of the pollution. Furthermore, water poured into the creek directly without infiltration process and the engineering channel cause the sediment problem. The 12' straight depth bank of the daylight creek block people getting close to Boneyard.
The design is to improve the ability of water retention, water cleaning, water ecology and water recreation.

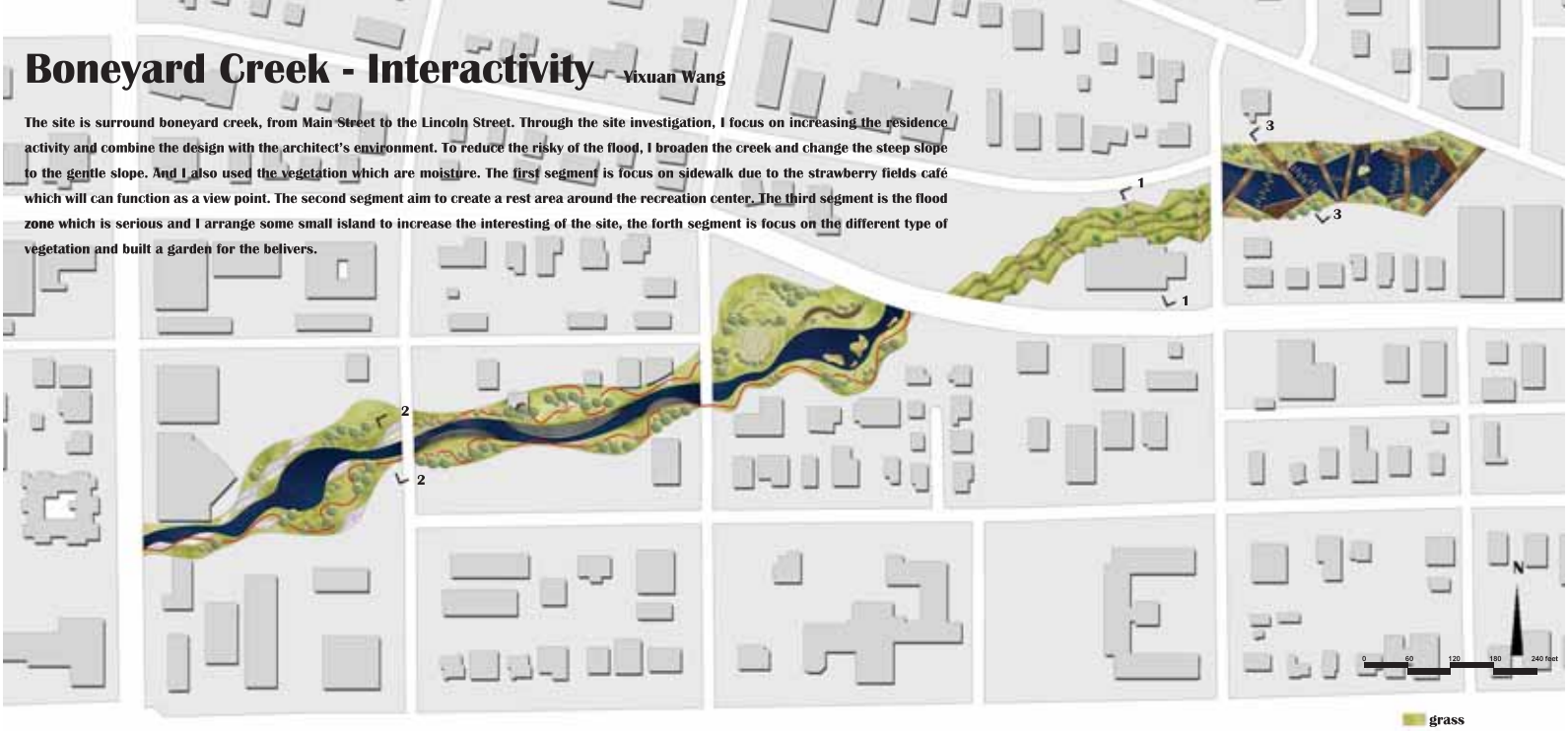
The wetland park in the first segment is to extend the natural filtration process at the sewage concentration part instead of the parking lot. In the second segment, because of the limited space between houses and creek, the green space is maintained and lengthened as much as possible. The channel designed to be a little meandering and island inside is to delay the water moving and also create some shelters for some species like fish fry and birds. The parking lot in the fourth segment is not daylighted. The raingarden and bioretention are set to show the creek underground and also improve the drainage and ecology at the parking lot. The stored water in this area is utilized for the foutain part and children playground. The basketball court is retained ang the parking lot is to designed as a place with recreational spaces.



Boneyard Creek - Interactivity

Yixuan Wang

The site is surround boneyard creek, from Main Street to the Lincoln Street. Through the site investigation, I focus on increasing the residence activity and combine the design with the architect's environment. To reduce the risky of the flood, I broaden the creek and change the steep slope to the gentle slope. And I also used the vegetation which are moisture. The first segment is focus on sidewalk due to the strawberry fields café which will can function as a view point. The second segment aim to create a rest area around the recreation center. The third segment is the flood zone which is serious and I arrange some small island to increase the interesting of the site, the forth segment is focus on the different type of vegetation and built a garden for the belivers.



grass
trail
bridge
sightseeing stand
plaza
flowers
callery frame
tree
shurb

Vehicle

section1-1 1"=15'

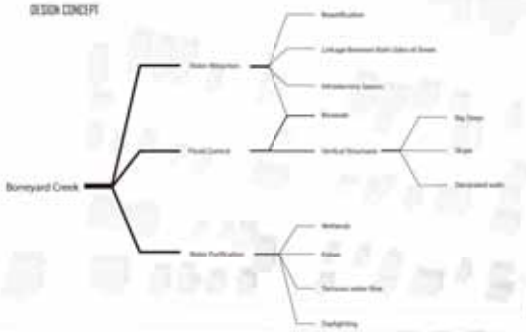
Material

section 2-2 1"=15'

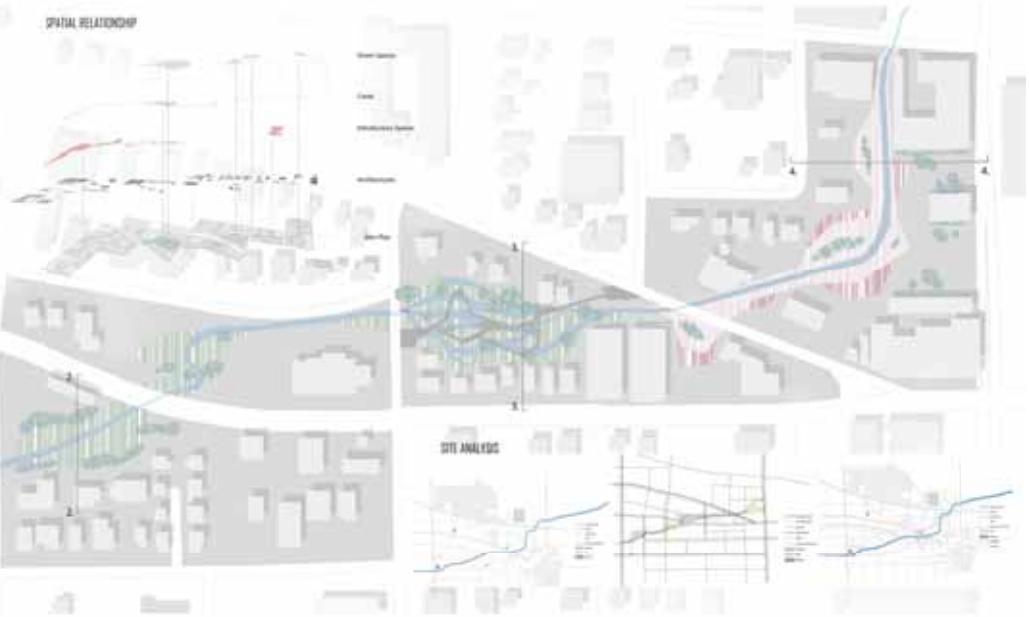
section 3-3 1"=15'

Purpose

DESIGN CONCEPT



SPATIAL RELATIONSHIP



SITE ANALYSIS

REGION DIAGRAM

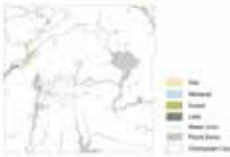
DAYLIGHT THE NEW LIGHT

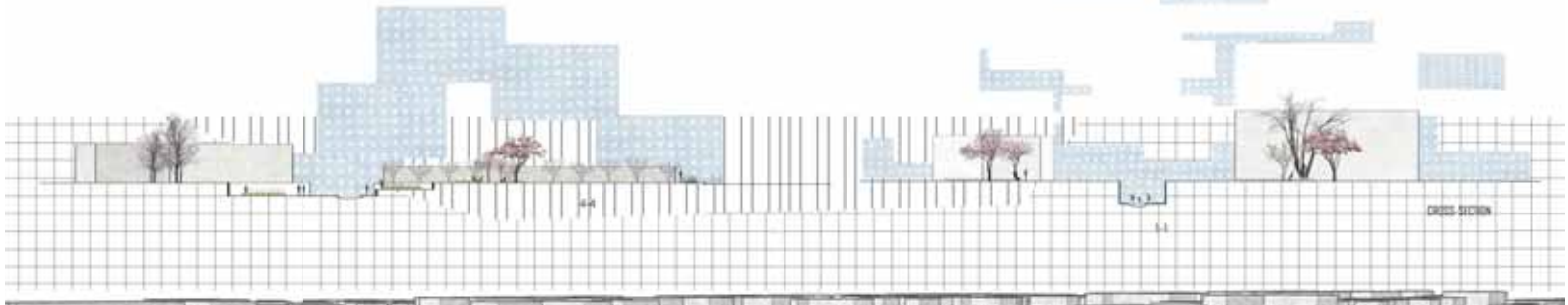
Boneyard Creek Landscape Design

LA 327
DYING LI

The location of this project lies in the north side of Urbana City Champaign County, IL. The site currently is less about the landscape function, but more about the function of flood-solving. Thus, to create a more attractive landscape here. I developed there design strategies regarding to the existing problems of this site. The first one is about the problem that there a few people visit this site currently. Part of the reason is that the creek is too deep to be noticeable for pedestrians walking along the roads; part of the reason is that there is no introductory spaces for the creek, so few people can really get to the view points. Thus, to solve this problem, the design includes lots of introductory spaces; place bioswales along the streets to attract pedestrians; beautify the outline of creek; straighten the linakage of the creek from both sides of the streets. In addition to its visual function, boneyard creek also takes the fuction of flooding control. To make this space a safe, functional place, the outline of creek has been broadened the steps, slopes, and the walls are actually conditional reserve spaces for flooding. Moreover, different from most of other creeks, boneyard creek takes over the responsibility of absorbing waster water as well, which means the water quality of boneyard creek requires additional attention. To do this, a wetland park was placed to deal with the purification o' water. The wetland park includes functional grasses and trees, fishes, various topography and was designed a tortuous waterflow. Therefore, water has much more volumn to connect with the air, which speeds up the process of water purification. Besides, grasses, fishes, and trees do not only contribute to the water purification, they also contribute to the establishment of the ecosystem of boneyard creek. Aside from the wetland park, the design daylights as much space as possible of boneyard creek, since sun light is also a big contributor to the process of water purification.

CROSS-SECTION OF BIOSWALE





ARIEL BIRD-VIEW

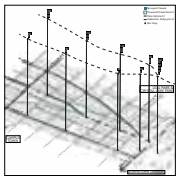
TERRA FLUXUS

BONEYARD CREEK SITE DESIGN
COMMUNITY DESIGN
STORMWATER MANAGEMENT

LA 537 MLA
STUDIO II
YANG XIA

DESIGN PLAN

SITE ANALYSIS



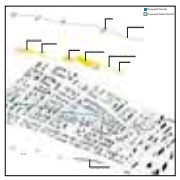
DESTINATION & CIRCULATION

MAIN VEHICLE ST
One main street goes across the site.

PEDESTRAIN & BYCYCLE ST
There are several pedestrian & bycycle St go across the site.

BUS ROUTE
13, 5,8 are the main buses that go around.

DESTINATION
There are three destinations. Campus town , Parks and Downtown urbana.

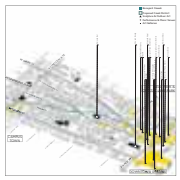


SITE IDENTIFICATION

CHANNELIZATION & SEWAGE DISCHARGE
The creek is channelized in this segment. There are several direct sewage discharge in creek.

POLITICAL LANDSCAPE
The governments of the project is complicated. The ownership varies in different sections. The city only owns the creek itself. In political sense, the site is fragmentized.

VISUAL EXPERIENCE & EVEVATION
Nearly half part of the project is covered by imperimeable material. Due to the flooded condition, there is 12ft elevation difference on both sides of the creek.



EXPLORE ART IN URBANA

SCULPTURE & OUTDOOR ART
there are several art installments around the site.

PERFORMANCE & MUSIC VENUES
A lot performance and music events are held around.

ART GALLERIES
There are several art galleries around.

SECTIONS

SECTION 1-1 *OUTDOOR THEATER*

LANDSCAPE AS PROGRAMED SURFACE
Here, landscape as an active surface, structuring the conditions for new relationship and interactions among the things it supports. The old store is renovated into a modern cafe, and the creek is widen up, a sunken outdoor theather can meet the needs for innovated urbana neighborhoods to hold different kinds of performing events.

An observation deck is designed to make the theater space more interesting. It is functioned both as pathway as well as runway or elevated stage.

SECTION 2-2 *ART SQUARE & APARTMENT*

A public plaza and arrayed trees set a perfect space for working class to spend their lunch time as well as afternoon tea time.

A high end apartment is planned to be built. Part of the future rent can be used as matainance for the creek park.

SECTION 3-3 *PROGRAMMED LAWN & PLAYGROUND*

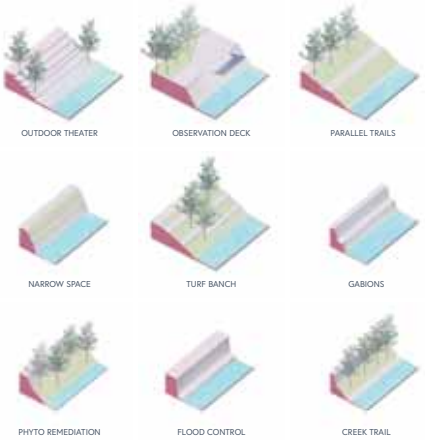
LANDSCAPE AS PROGRAMED SURFACE
Here, landscape as an active surface, structuring the conditions for new relationship and interactions among the things it supports. A big, well constructed, flat community lawn replace the old bare parking lot. During the weekends, it can be used as gathering spot for many public activities, like outdoor yoga, barbecue, and even wedding ceremony.

LANDSCAPE AS PROGRAMED SURFACE
High grass is planted in linear way to interpret the creek beneath. Along the high grass, playful installments are placed radomly, for neighborhood kids to play with.

DESIGN CONCEPT

The concept of this design is the flow of land. In the design process, the principle of ecological design should be followed as much as possible, so as to deal with the slope space and solve the high difference in the field. Simple streamline design conforms to the current situation in the site, or near or far, along the walkway is a coherent bio swale to purify water quality, rain and flood management. The nature of the site is blurred and can be used in a variety of ways for the imaginative and seductive Urbana residents.

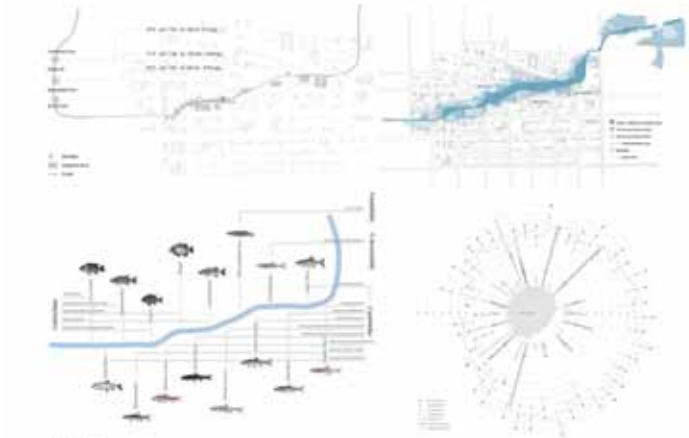
BANK TYPOLOGY



PERSPECTIVE SECTION

SECTION 4-4 *CONSTRUCTED WETLAND, PAVILION & ECO WALK WAY*

SITE ANALYSIS



“FROM SPACES TO FLOWS”

This plan is about using boneyard creek as a flow which connects the five adjacent segments together. It combines campus area residential area and Urbana downtown and creates more engagement along boneyard creek. During each segment, elevated corridor is set to allow more interaction with water. Parts of the riverside are broadened to slow down the river speed in order to deal with potential flooding issue, which also provides more possibility for wildlife habitat. Outdoor theater as a central gathering plaza provides an outdoor open space for residents. It works with the water level in boneyard creek, which allows social events in dry seasons, becomes a pool in flooding seasons and skating rink in winter time. Elevated layers of steps and fish ponds bring more engagement between human and nature. Islands in creek help to build more possible habitat for wildlife and native plants.

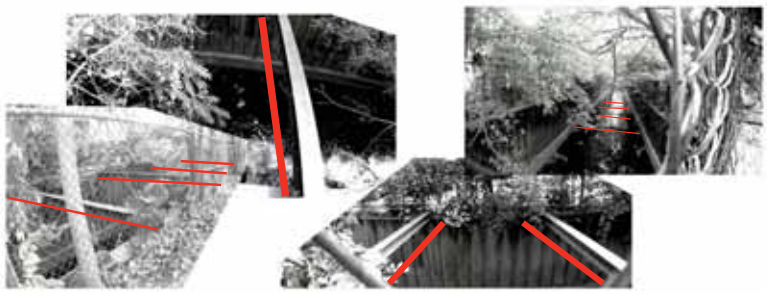
By the flow of boneyard creek, it will become an ecological space for creation.

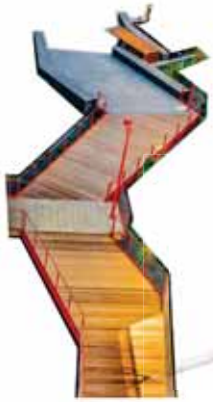
MASTERPLAN

SECTION

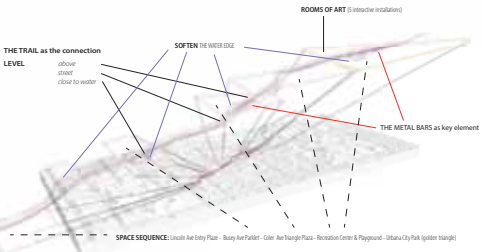
BONEYARD CREEK -- THE MISSING ONE MILE

SITE DOCUMENT : THE METAL BARS



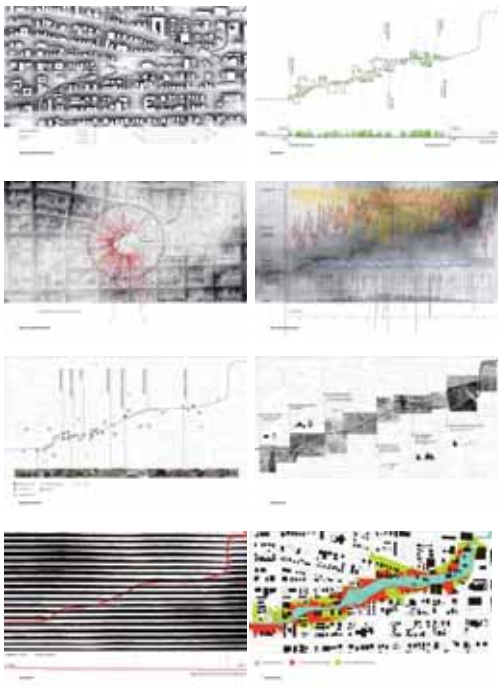


A TRAIL AND THE BARS **: SITE CONPECT**



CASE STUDY & SITE CONTEXT

SITE ANALYSIS



0ft 100 200 400

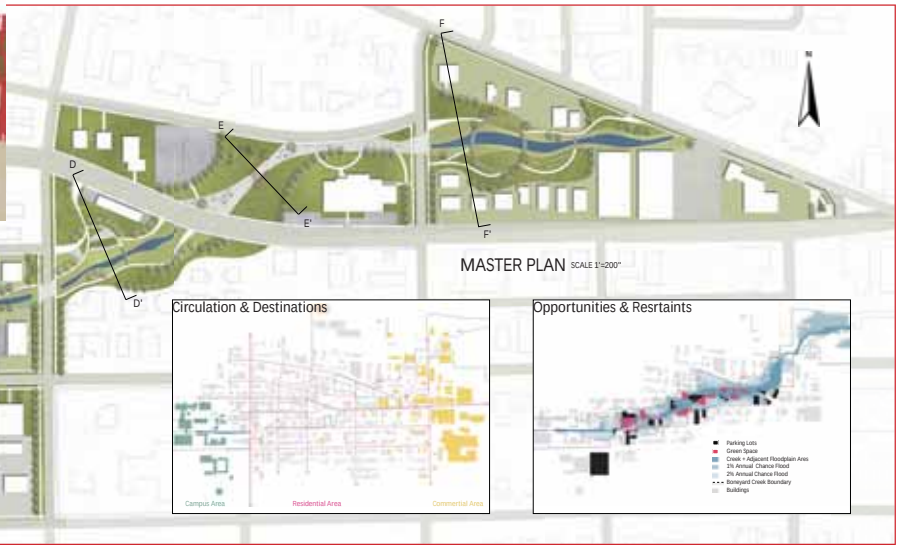
MASTER PLAN

0ft 12.5 25 50

SECTIONS

MARK(JINYU SHEN)

Revitalized Riverfront Design
Urbana Boneyard Creek
LA 537 Studio Xi Wang



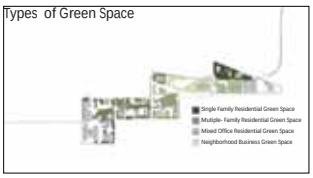
Location

This project is a section of Boneyard Creek, which lies in Urbana. It is a tributary of the Saline Branch of the Salt Fork Vermilion River, which is a part of the south-flowing Vermilion River and the Wabash River.

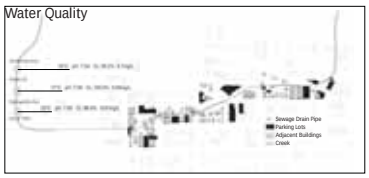
Circulation & Destinations

Opportunities & Resrtaints

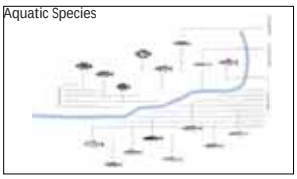
Types of Green Space



Water Quality



Aquatic Species



Description

This project aims to solve the flooding issue and offering accessible outdoor recreational places, which has to balance the relationship between the waterway and adjacent land. For the waterway, I design to take away the metal walls and create natural buffer zone to enhance the resilience in the face of ecological disturbance. I considered using flood resistant plants in the flooding zone, which also purify the quality of water. For the recreational places, walking trails, bank platform and riverfront seats are installed, providing accessibility for people. Based on the different context of the five blocks on the site, I define them into multiple themes. Two blocks in the west part are relatively private due to the current school and private houses. The planting pools aim to offer an educational services to the school. The red hollow-out wall, long benches and sidewalk planting trees strengthen the visual connection in the North-South direction. The rest three blocks are more open. Accessible riverfront trails, benches and cross-river trestle bridge highly encourage people to stay and relax. Open curve plaza physically stresses the hidden creek.

Section B-B' SCALE 1"=100'

Section E-E' SCALE 1"=100'

Section A-A' SCALE 1"=100'

Section C-C'

Section D-D'

Section F-F'