

ALYA AL-RAJAB

BLA GRADUATE PORTFOLIO

2
0
2
5

2
0
2
5

Phone Number:
905-923-6545

Email:
alyaalrajab@gmail.com



TABLE OF CONTENTS



01

**Sustainable
Marshes for an
Eroding Tradition**

Capstone Project



02

Country Hills Park

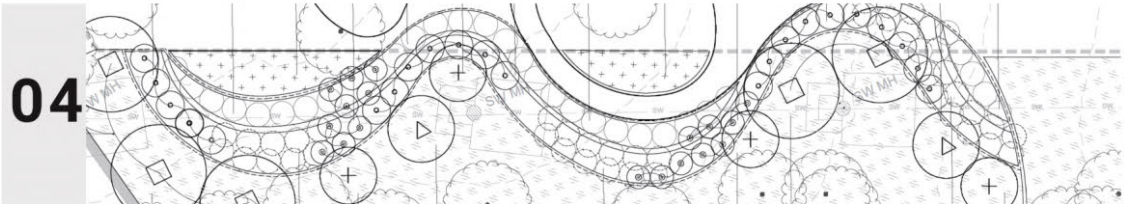
Recreational project



03

**+ Reconnect
Spring Perspective**

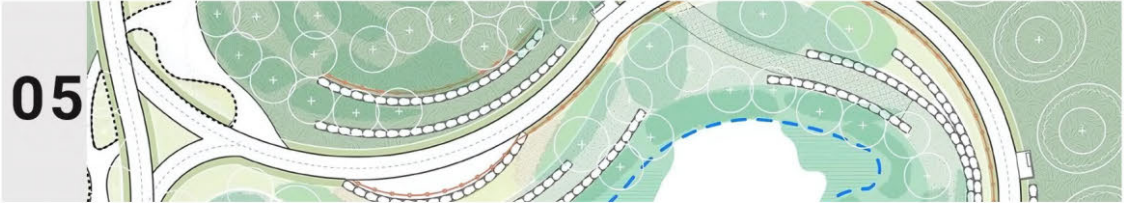
Landscape Design
Proposal



04

**16 Lilac St.
Easement**

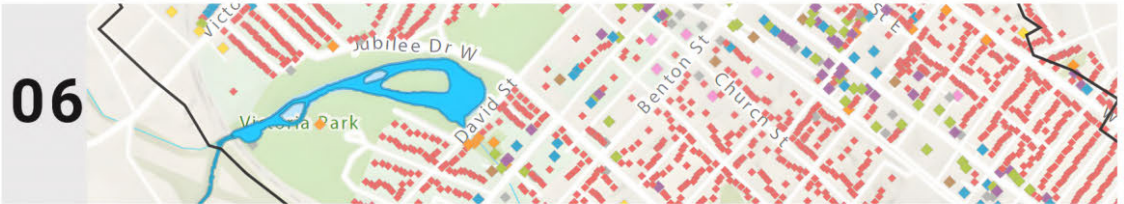
Public Sector Project



05

Meadowlane Park

Recreational Project



06

**A Greener
Schneider Creek**

Regional Design Project



07

Eco-Nexus

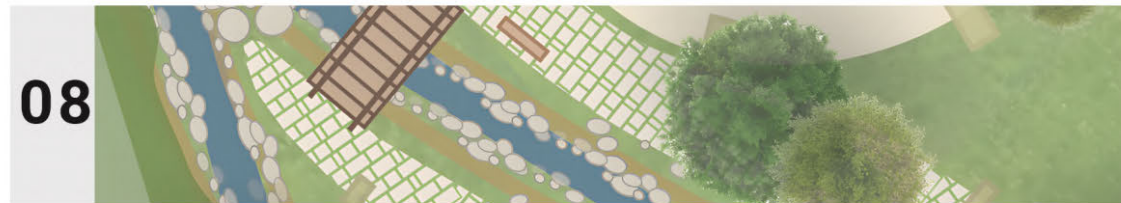
Urban Design Project



10

**LA Building
Courtyard**

Construction Project



08

Eco-Cherry Park

Regional Design Project



11

Sketchbook


Site Analysis Project



09

**Rozanski Hall
Plaza**

Construction Project



THESIS PAPER

Landscape Architecture & Heritage Recovery

What can be the role of landscape architecture in the reconstruction of post-war Iraq?

1. Significance of cultural landscapes, what impacts them, and their relevance to the profession;
2. The profession in Iraq vs. Canada;
3. Issues with authentic representation within the context of modernism, globalization, and international practice;
4. The effectiveness of international assistance; and
5. Case studies exhibiting cultural and historical preservation.

September - December 2024

Sustainable Marshes for an Eroding Tradition

Southern Iraq | Capstone Project | Fourth Year | Winter 2025

The aim of this project was to examine the role of landscape architecture in the heritage recovery of post-war Iraq, specifically where that kind of effort would be most impactful: Al-Ahwar (Marshlands) of Southern Iraq. It tackled issues related to harmful systemic drainage initiatives, oil developments, flooding, drought, poor water quality, degrading ecological and cultural value, and migration. The overall goal was to revive the heritage of the very marshlands from which the earliest civilizations emerged by restoring the two most important elements of the site, water and vegetation, to revive the cultural expression, mobility, and livelihood of the Marsh Arabs.

26

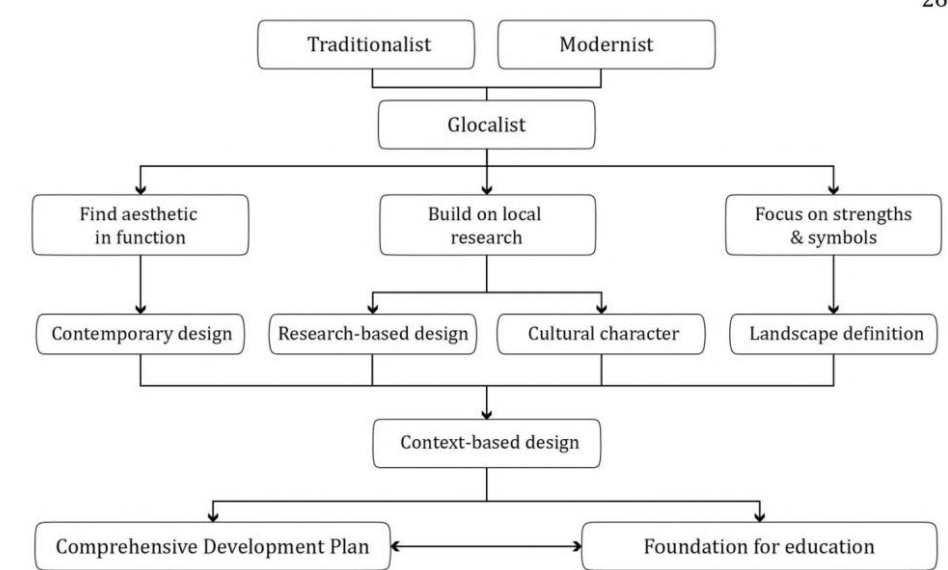
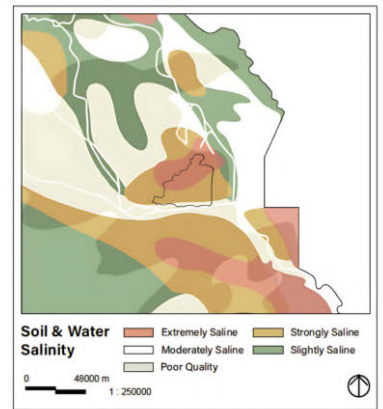
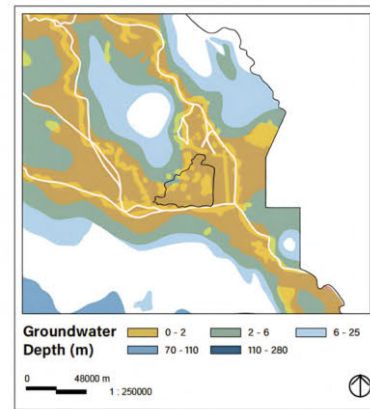
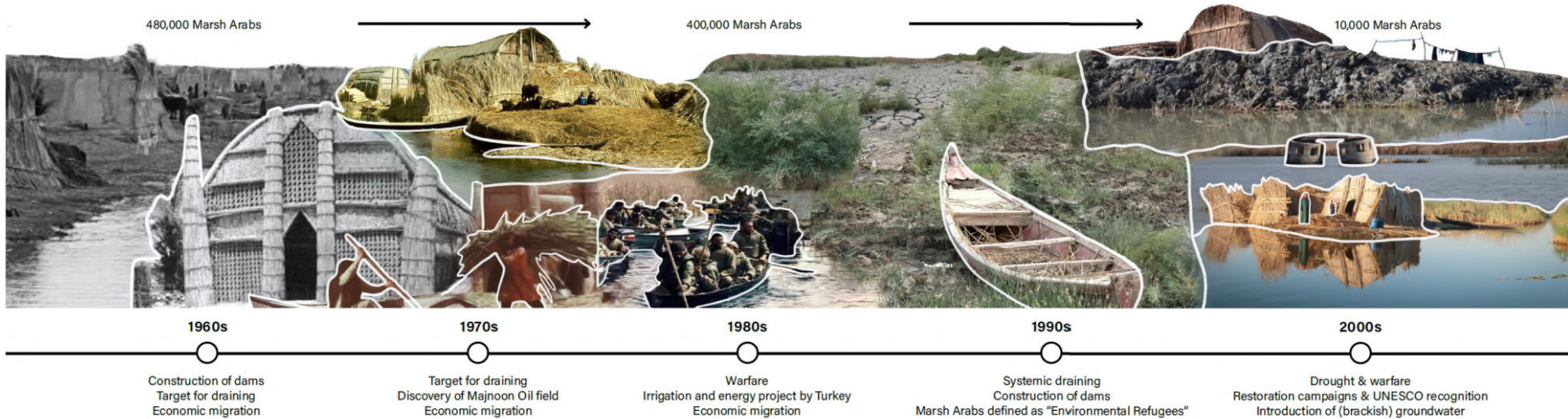
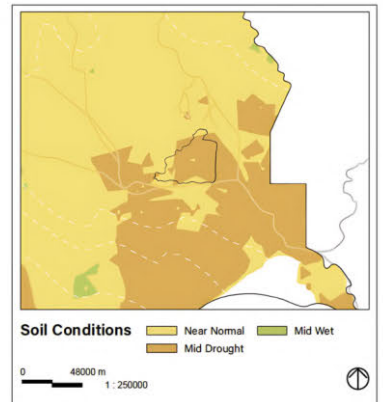
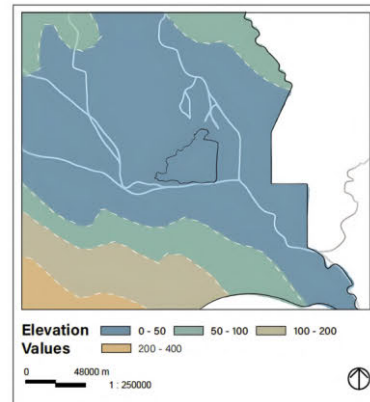
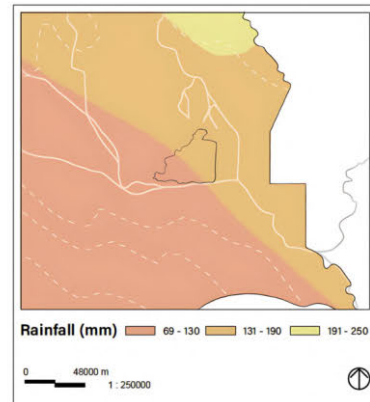


Figure 3.3: Identity-Based Cultural Recovery Framework (Source: Author)

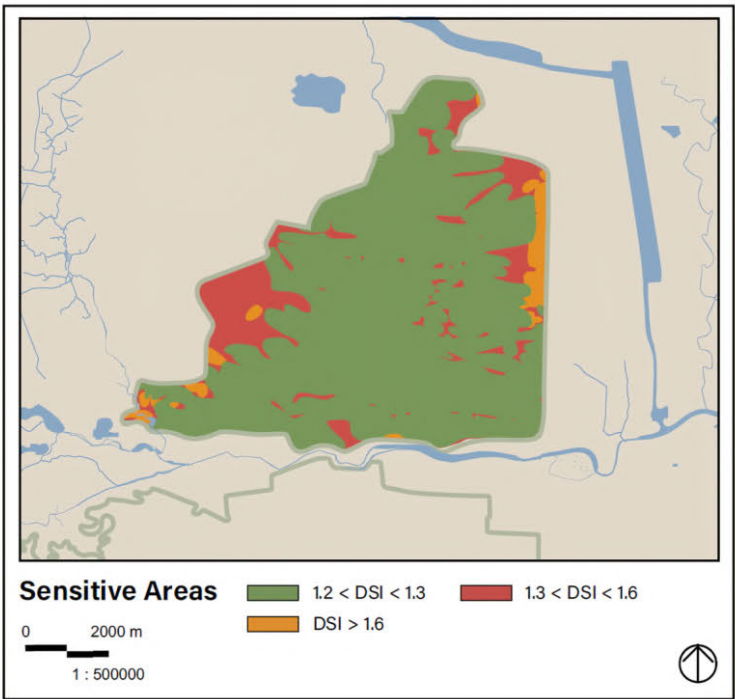
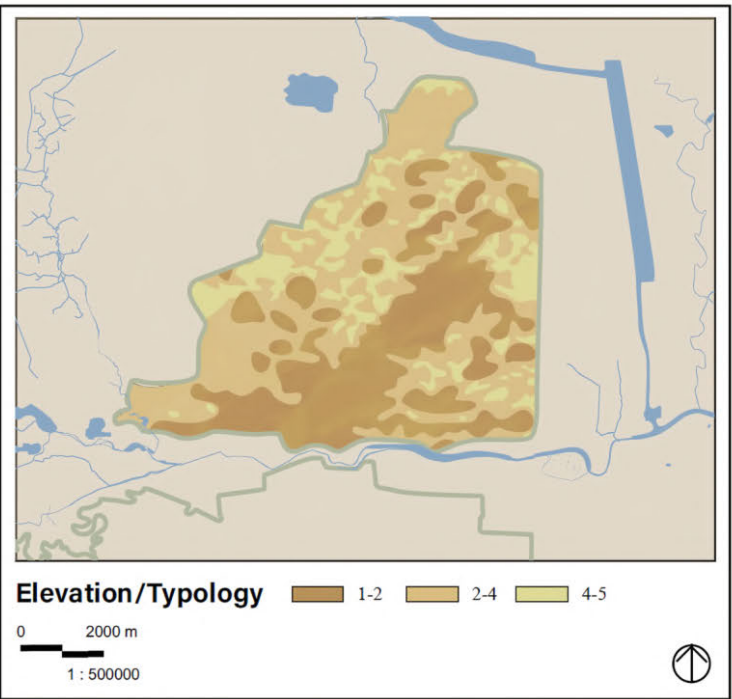
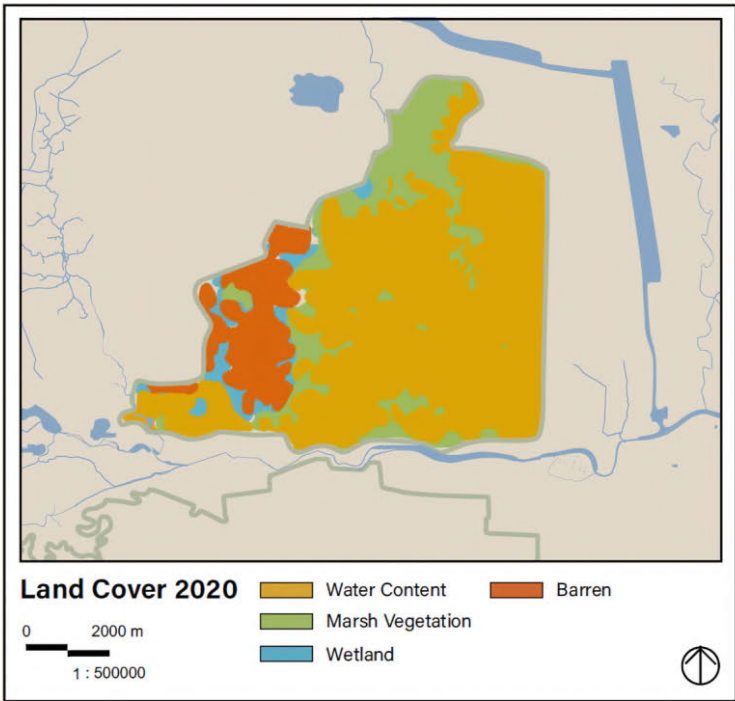
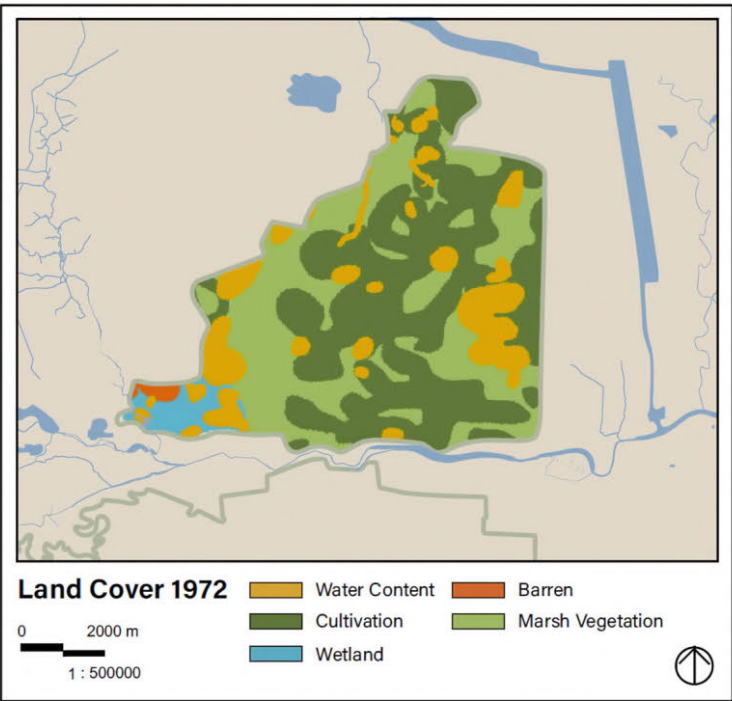
3.3.1 Identities: Traditionalist, Modernist, & Glocalist

The framework is divided into the three identities outlined in the second case study which include Modernist, Traditionalist, and Traditionalist-Modernists or Glocalist identity, and each one is supplemented with specific recommendations. Generally, developing a glocalist identity is the most ideal and advantageous because change is constant and inevitable. Ameli et al. (2017, p. 38) explain that this view “holds the city as an ancient plant with its roots in history which will grow and fertilize in ‘today’s environment.’” It recommends both traditionalist and modernist practices that balance the two identities. It can help Iraq keep up with global demands without sacrificing its locality, as seen in Kyoto’s example, and guide international designers to utilize its cultural and historical characteristics so as to not overlook them in the design process. On the other hand, a modernist approach strengthens Iraq’s presence globally, whereas a traditionalist approach capitalizes on its local significance. Essentially, whichever identity Iraq falls in, the recommended actions seek to create a balance between modernist practices and traditional ones.

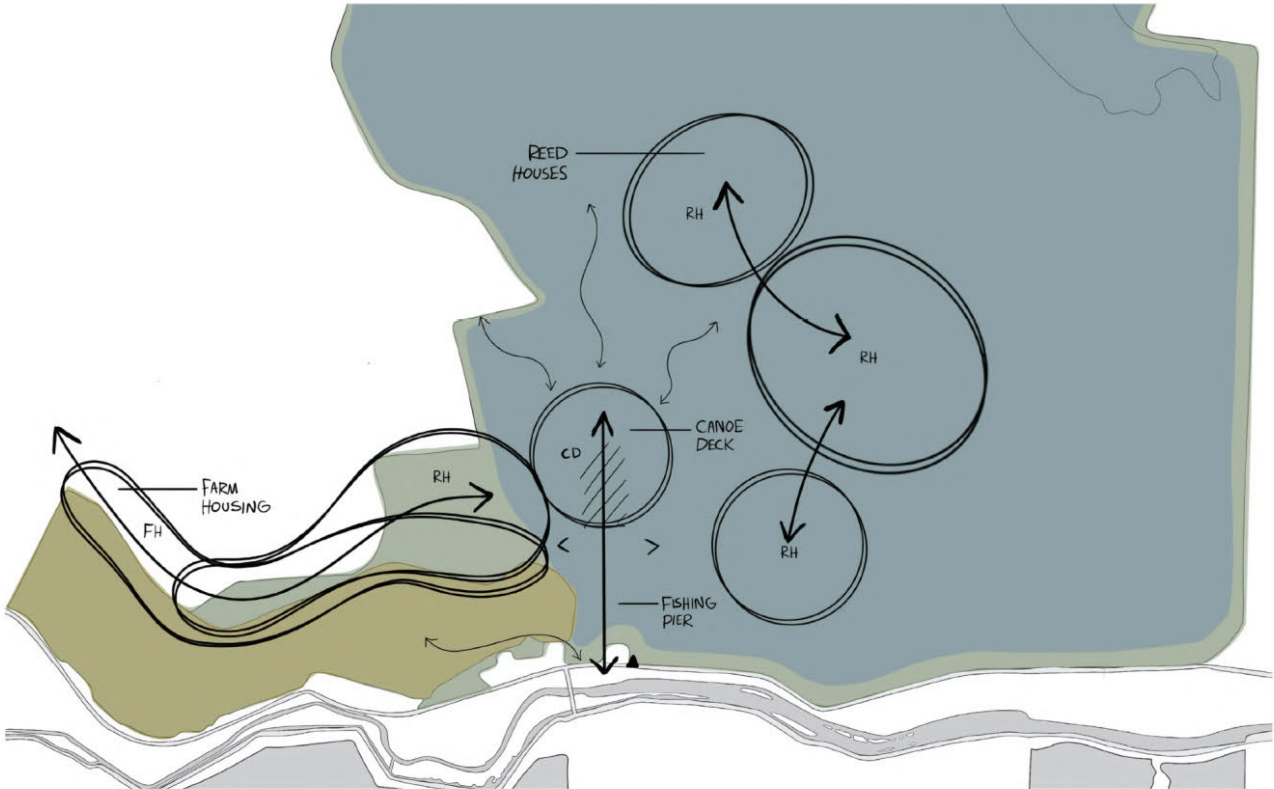


The Marshes Over the Years

The Marshes Context Analysis



AI-Chibayish Marsh Site Analysis



AI-Chibayish Marsh Bubble Diagram



Riparian Buffer

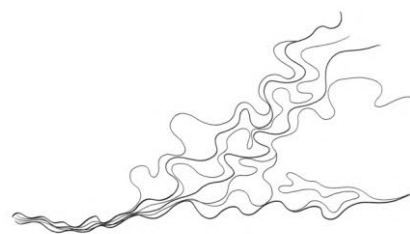
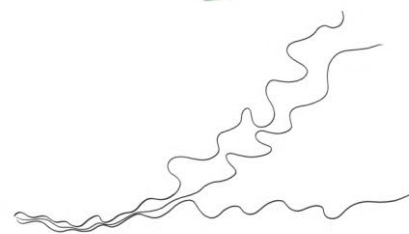
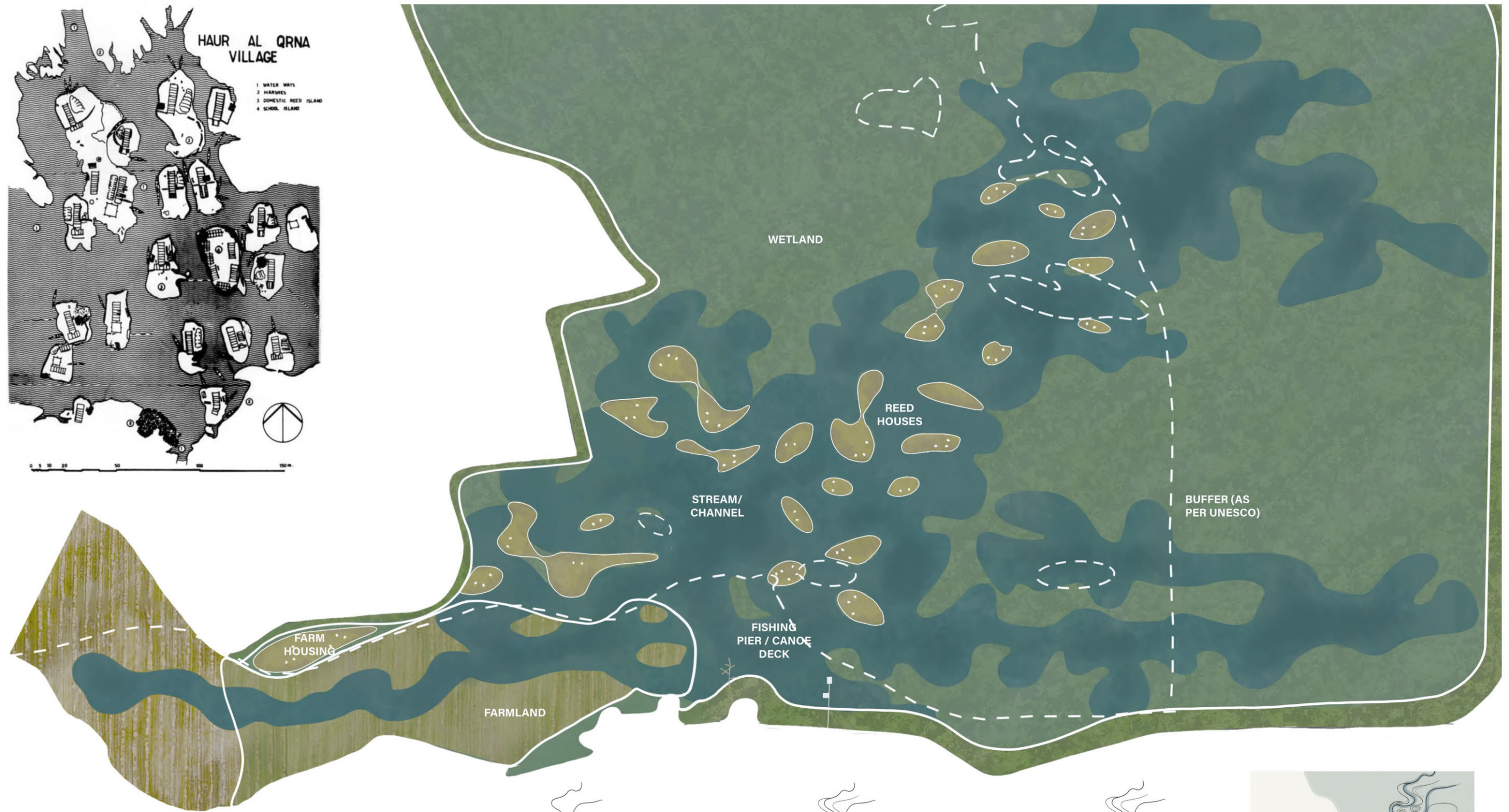


Contour Ploughing



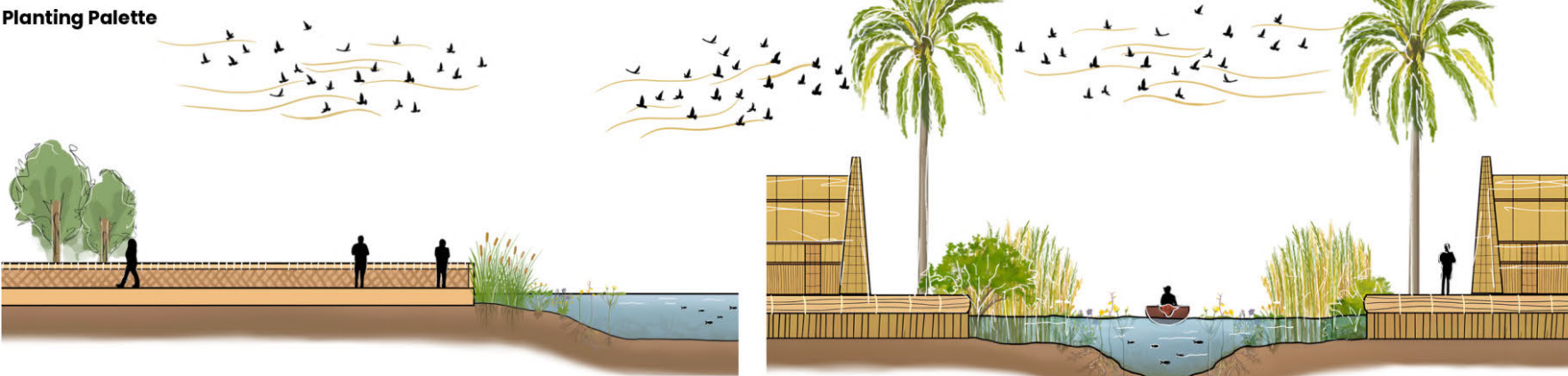
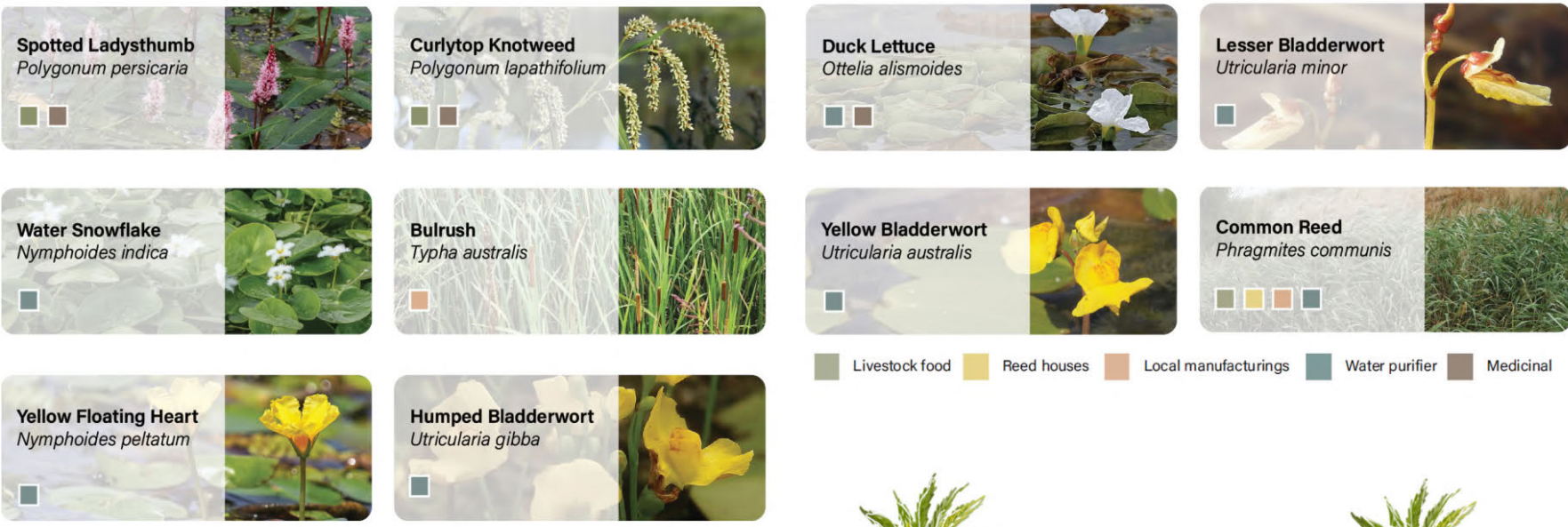
Constructed Wetland

AI-Chibayish Marsh Proposed Water Management Strategies



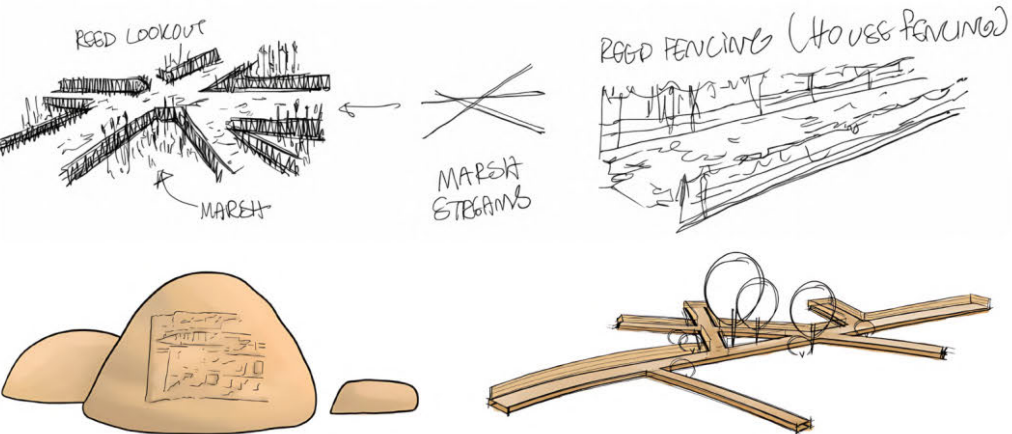
The proposed water management strategies were tailored to the site's existing agricultural context. In the farmland area, riparian buffers and contour ploughing were introduced to reduce sediment runoff, slow down water flow, and enhance soil infiltration for healthier crop growth. Beyond the buffered areas, constructed wetlands were incorporated for their ecological performance and experiential quality.

Programming drew inspiration from the marshes' traditional reed architecture, blending cultural symbolism with ecological function. The proposed plant palette restored key aquatic and submerged plants that support livestock, inhabitant's well-being, local manufacturing and reed houses, and water retention and filtration.

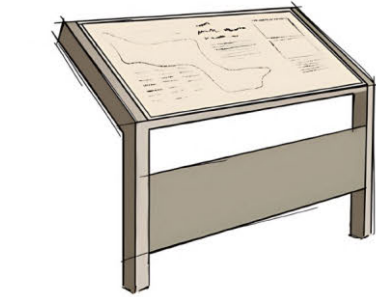


Reed Lookout / Fishing Pier / Canoe Deck Section

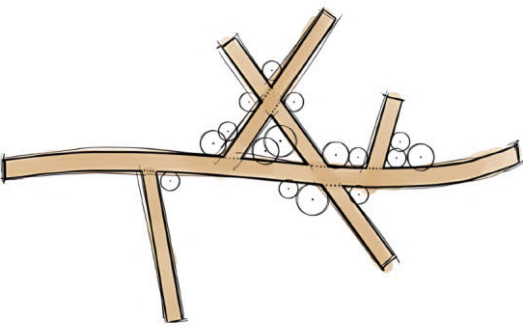
Marsh Stream Section (Typical)



Conserved Clay Tablets



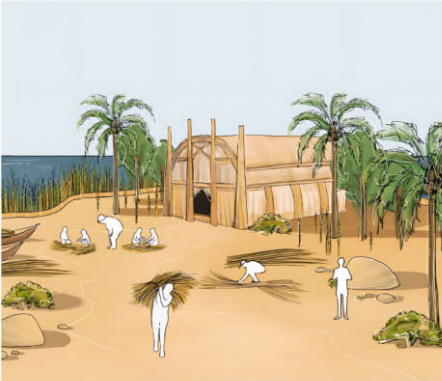
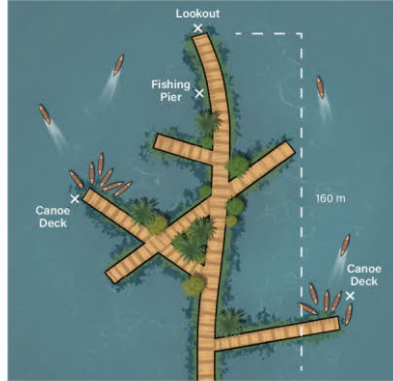
Informational Signs



Reed Lookout / Fishing Pier / Canoe Deck

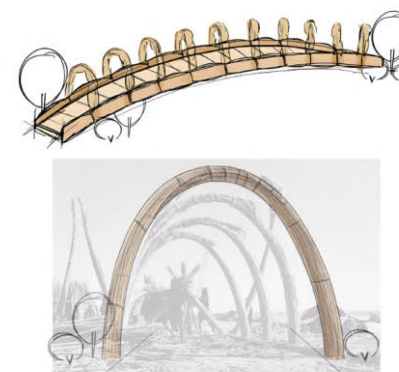
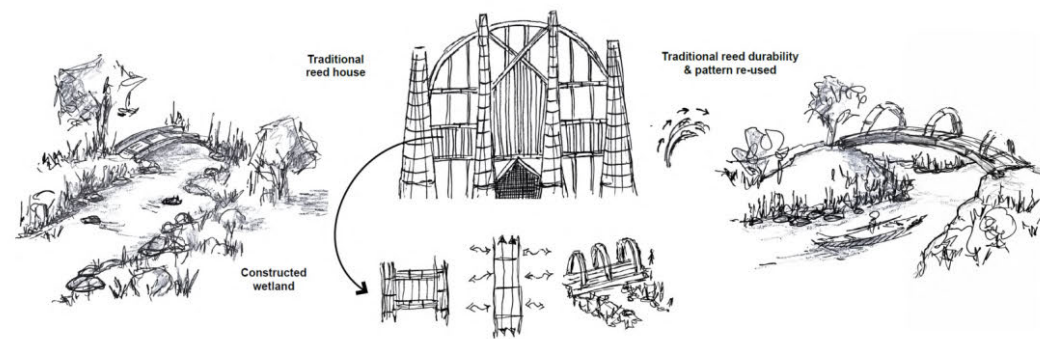


Reed Lookout / Fishing Pier / Canoe Deck Perspective & Plan

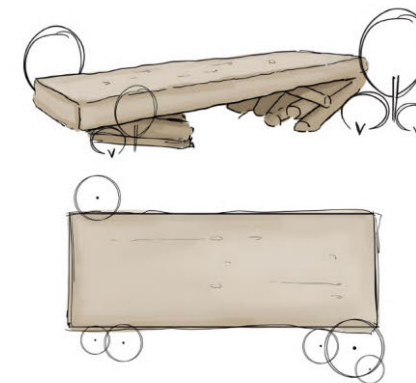


Marsh Island Perspective and Plan (Typical)

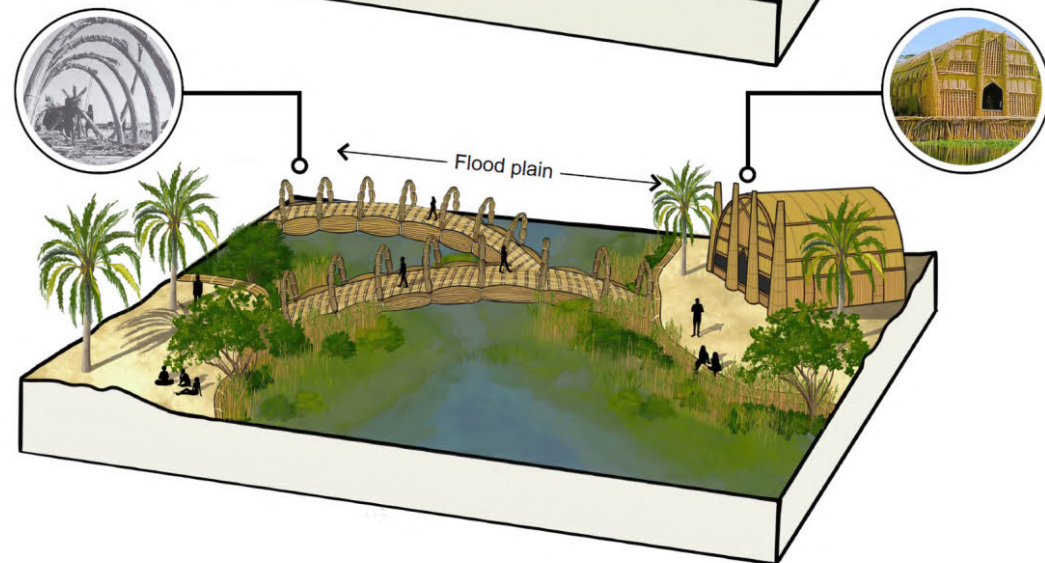
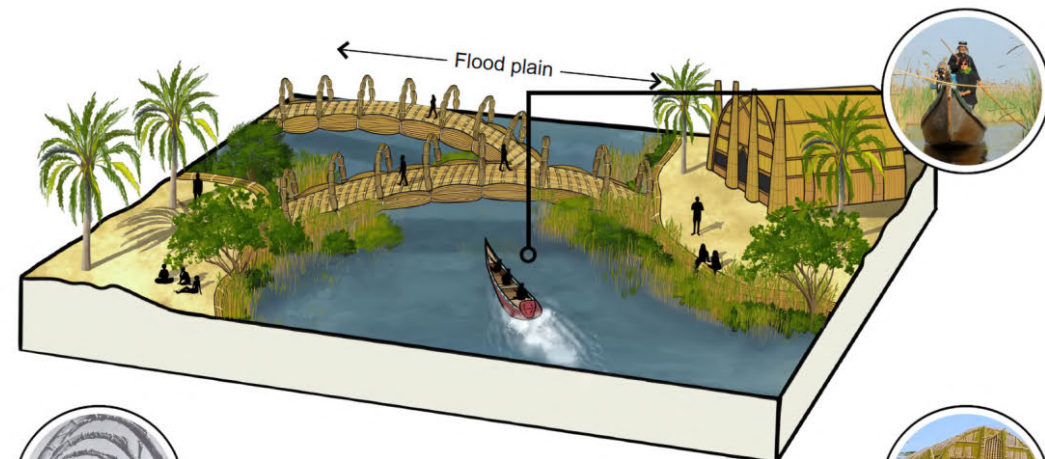




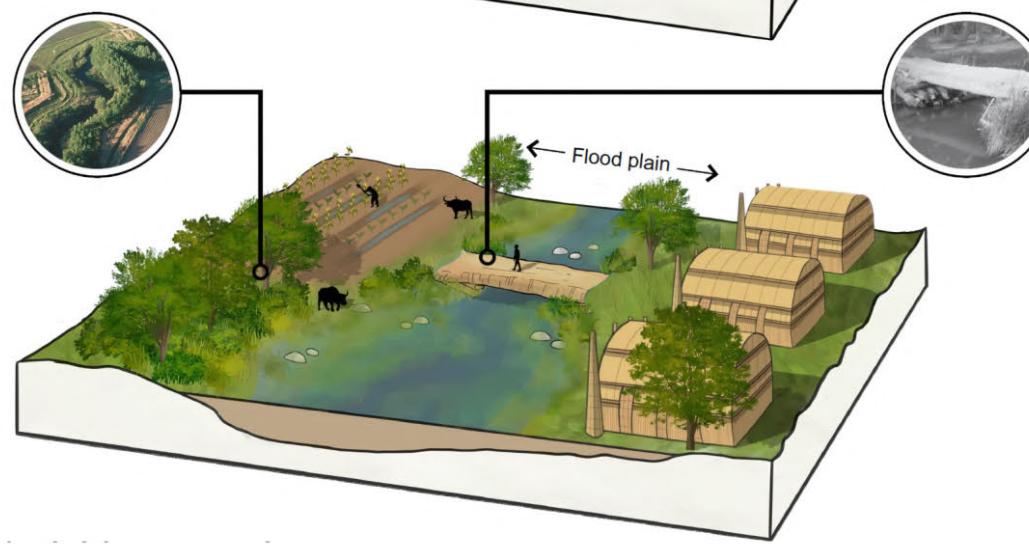
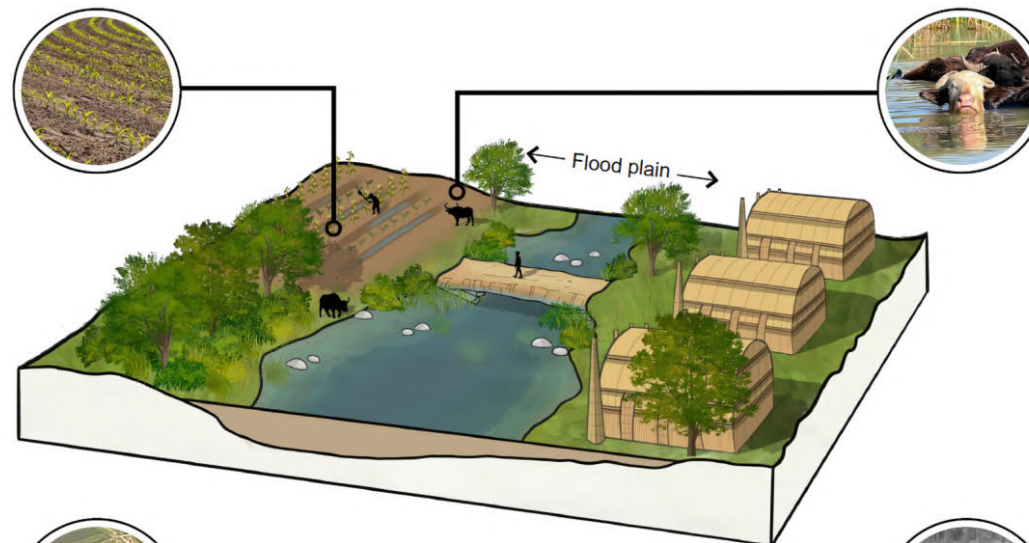
Reed Bridge Arc



Traditional Palm Tree Bridge



Marsh Stream Axonometric (Typical)



Farmland Axonometric



Marsh Stream Perspective (Typical)



Farmland Perspective



Context Map



Constraints

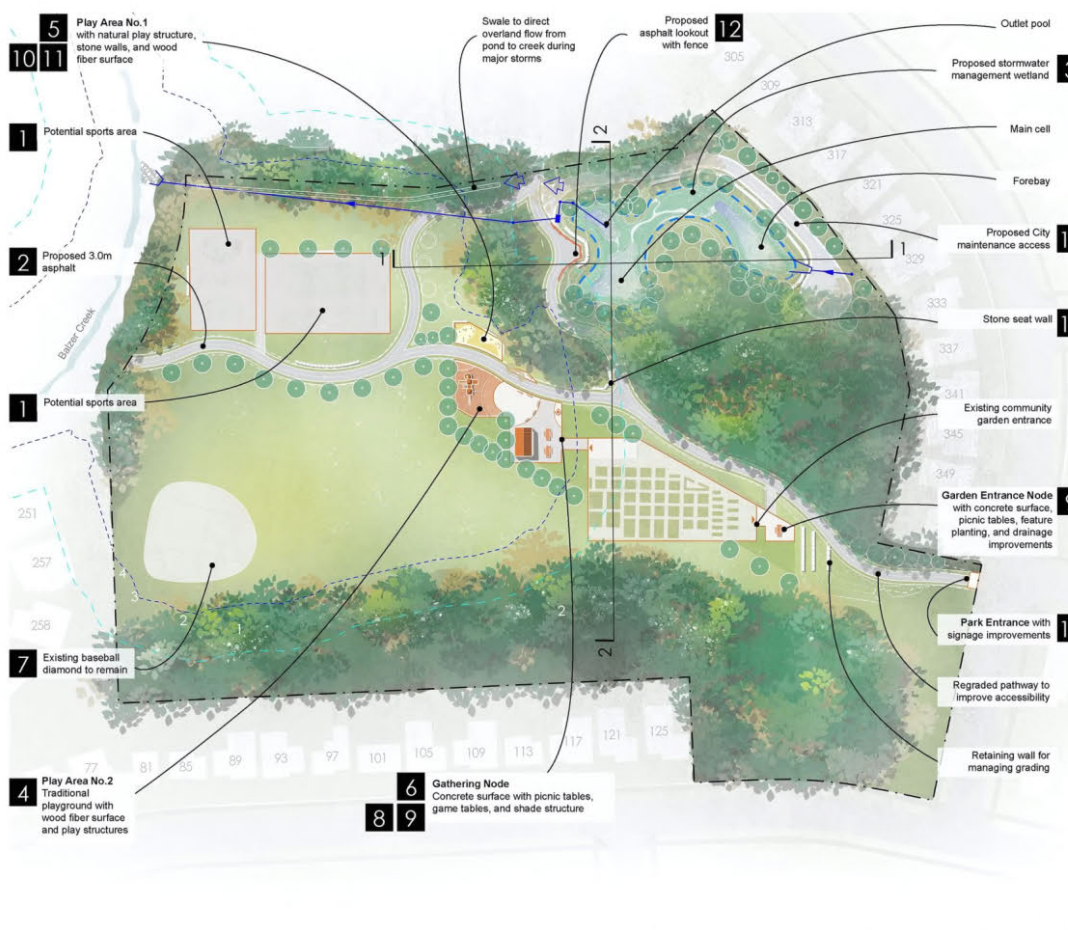
Country Hills Park

Kitchener, ON | Recreational Project | Internship | Summer 2024

This was a recreational project that proposed to upgrade the existing trail of Country Hills Park in Kitchener as well as to add a stormwater pond, underground stormwater feature, and other park features in response to the community's interests and needs.

Under supervision of a landscape architect and design lead, I was tasked with:

- Generating cross sections of the design using AutoCAD Civil 3D and Illustrator;
- Creating context and constraints maps, plant matrix, and planting plan using Illustrator and InDesign;
- Drafting landscape and construction details; and
- Laying out the project package.



Aquafor Beech Ltd. reserves the right for the details to change. Because this lies within a GRCA regulated area, the design elements within the floodplain are subject to approval by GRCA.

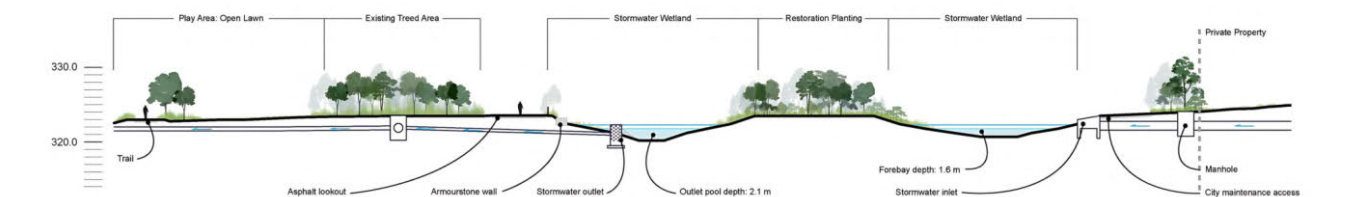
Community Inspired Features



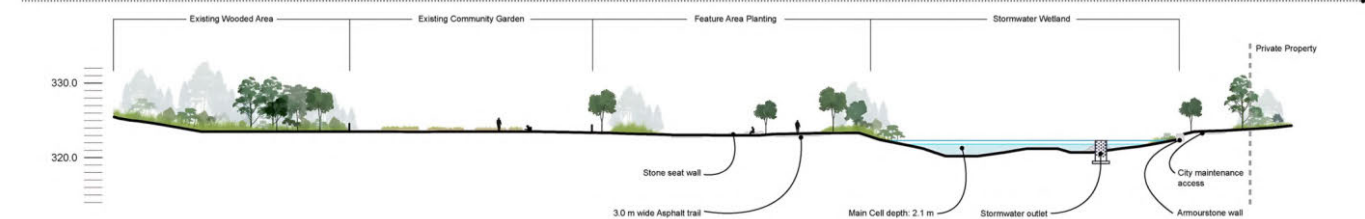
Site Plan and Features



Planting Plan and Matrix

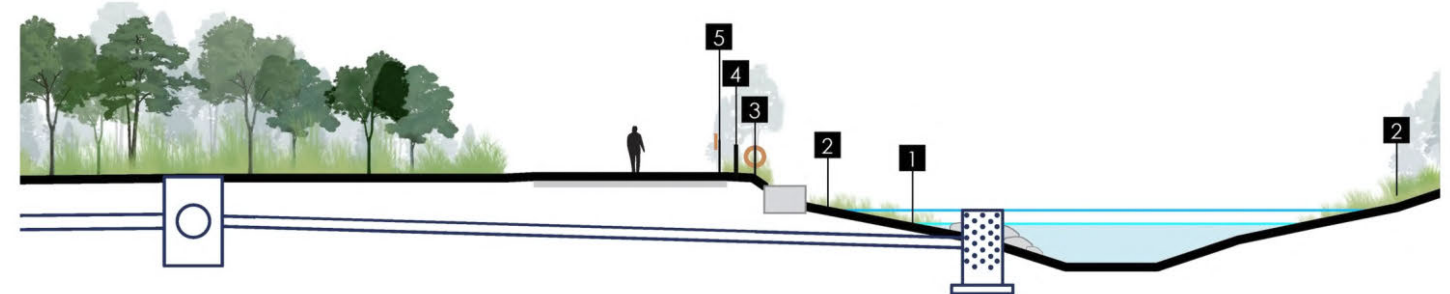


Cross Section 1-1: Looking North

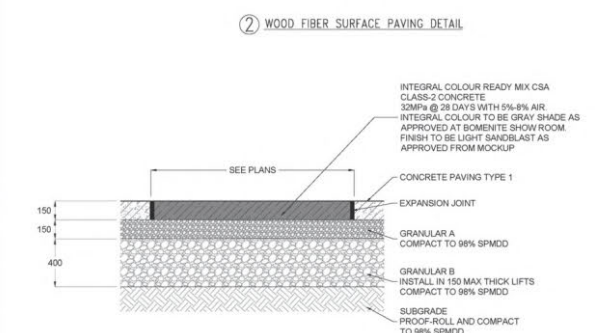
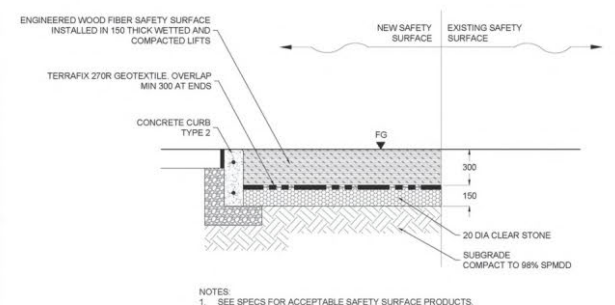
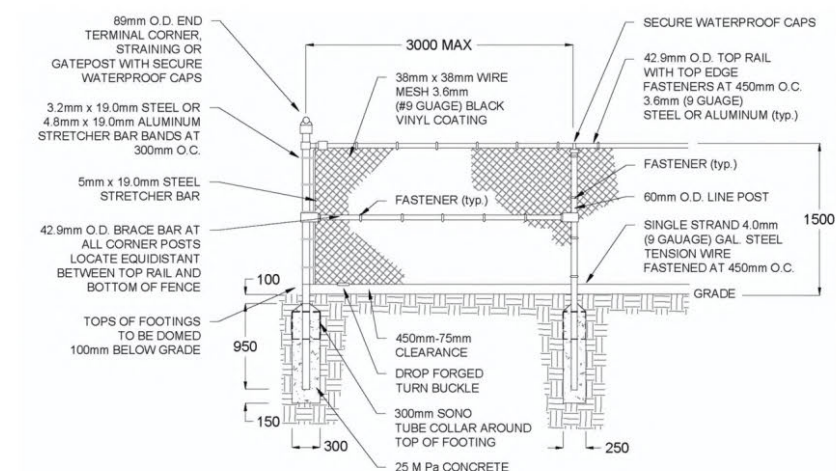


Cross Section 2-2: Looking West

Cross Sections



Wetland Safety Features






COLORFUL CONCRETE SURFACE PAVING DETAIL

Landscape Details

+ RECONNECT
Spring Perspective



The design introduces a treatment train approach, using source and conveyance LID tools to meet and in places exceed, the targets set within the City of Toronto's Wet Weather Flow Management Guidelines (2006) and Tier 1 of the Toronto Green Standard (Non Residential Version 4) as well as the TRCA Stormwater Management Criteria (2012) and the Low Impact Development Stormwater Management Guidance Manual (MECP, 2022), the most recent state-of-the-art LID manual. A summary of the site's stormwater performance metrics is provided below.

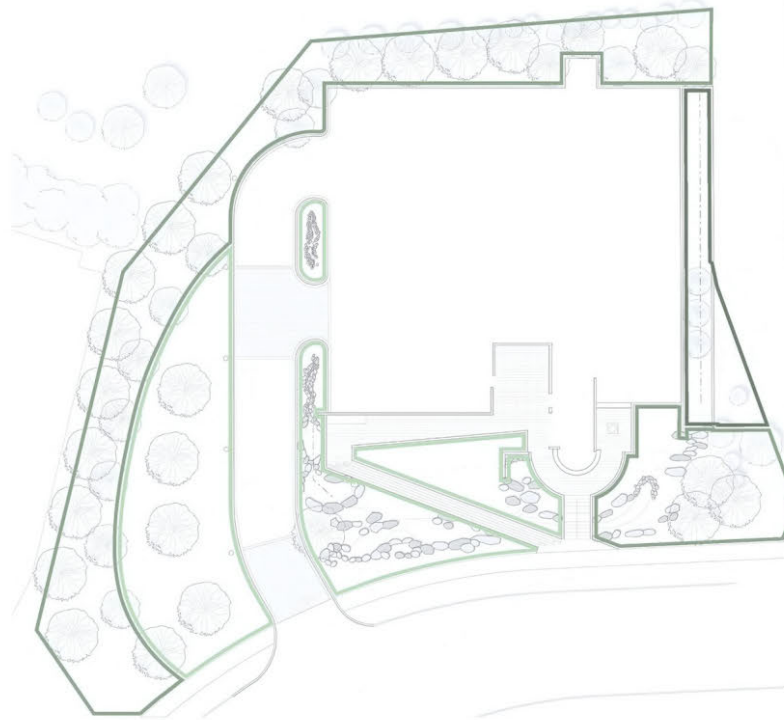
-  The system has the capacity to infiltrate 90% of all rain events within a 48 hour drawdown period, or the 28mm storm per the 2022 MECP LID Guidance Manual.
-  Per the 2022 MECP LID Guidance Manual, by fully capturing and infiltrating the 90th percentile event, the site is able to provide enhanced water quality treatment (80% TSS removal)
-  In the 100-year storm, the landscape will be fully saturated. All facilities have been sized to fully capture the volume required to control peak flow rates to existing levels at a minimum. Final outflow rates subject to outlet structure orifice control design (0.05m3/s used as conservative target).

The Vision
CELEBRATE THE SITE'S ECOLOGICAL CONTEXT: The OAA site is situated on land that was once part of the physiography of the Don River valley. This valley has been a rich habitat for flora and fauna for generations. The First Peoples relied upon the valley and the river for physical and spiritual sustenance. As the land was settled and Toronto evolved, the connection between the site and the river was severed. The concept for the renewal of the landscape is aimed at re-establishing and celebrating the connection between the site and the valley corridor by extending the physical and ecological function of the valley landform into the site, and by positioning the element of water as the centerpiece of the composition.

CELEBRATE DYNAMIC NATURAL PROCESSES: The proposed landscape interventions seek to model the integration of resilient natural systems within the urban fabric while embracing Indigenous knowledge and tradition to recognize and respect water as sustainer of life. The proposed design prioritizes celebration as a critical posture to healing our relationship with the land. Inspired by Indigenous tradition of ceremony as a way to acknowledge the land and its good gifts, the design elements work together to expose and celebrate natural processes and their annual rhythms and encourage change from a perspective of gratitude and humility, rather than guilt and fear.

CELEBRATE ARCHITECTURAL EXCELLENCE: Built on the first two core elements of the vision, the design is reverent to the iconic architecture of the OAA building and is aimed at amplifying the presence of the key features of the structure and integrating them with the landscape. The design also seeks to celebrate the work of architects and bring the talent of OAA members into the public eye. The design creates a forum for the display of the talent, creativity, and vision of the membership.

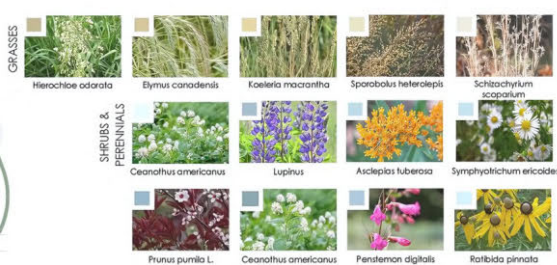
Vision and Stormwater Narrative



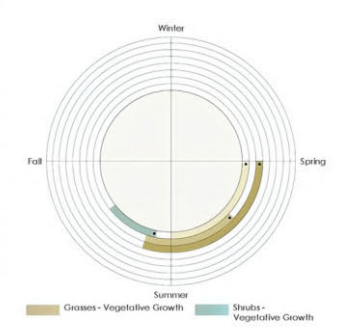
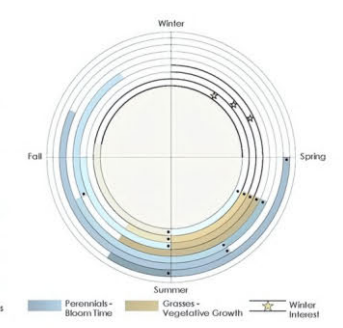
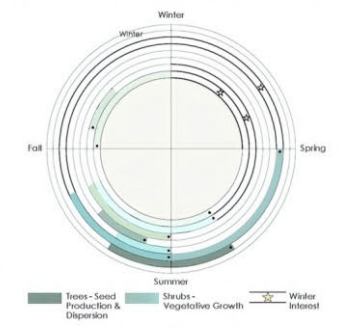
FOREST EDGE
This palette was selected to reflect the composition of the Don River valley and its historical vegetation communities. Sugar Maple, White Pine, Red Oak, Paper Birch, Sumac and Alternate-leaf Dogwood will create a strong edge condition, framing views and providing a natural buffer between land uses and the valley corridor. The phenology calendar (right) summarizes the seasonal cycles of the forest edge community.



GRASSLAND
This community was selected to reflect the valuable landscapes stewarded by Southern Ontario's original caretakers. Dry and moist grasslands once dominated the landscape and were managed and celebrated by Indigenous peoples long before colonization. Black Oak with foundation planting of Sand Cherry and New Jersey Tea will be scattered throughout the landscape to provide structure while Little Blue Stem, Prairie Dropseed, Junegrass, Wild Rye and medicinal Sweetgrass will create a dynamic ground plane providing year-round visual interest. Low growing, flowering species of coneflower, sunflower, butterflyweed, aster and lupines will provide splashes of colour and highlight the passing of the seasons. The phenology calendar (right) summarizes the seasonal cycles of the grassland community.



ARCHITECTURAL EXHIBITION
To celebrate the work of the architecture profession in advancing sustainability within the built environment and to connect with the curated installation and display area to the north of the main entrance, the north side of the building will be planted with bamboo and flowering specimen trees. Bamboo has been identified as a sustainable and renewable alternative to structural steel in reinforced concrete and provides a tangible example of the valuable role plants play in shaping and supporting society. The phenology calendar (right) summarizes the seasonal cycles of the planting.



Planting Plan, Plant Narrative, and Plant Matrix

OAA Design Competition:
+ Reconnect

Toronto, ON | Landscape Design Proposal | Internship | Summer 2024

This project involved creating a landscape design proposal for the OAA building's surrounding landscape. The goal was to further the Association's Renew + Refresh initiative, net-zero design, enhance the site's experience and context, and recognize the role of sustainability and water.

Under supervision of a landscape architect, my tasks included:

- Creating a planting narrative which required:
 - Gathering data regarding all proposed plants; and
 - Creating a seasonal schedule for the plant matrix.
- Laying out the planting plan page with all of the above; and
- Creating visual symbols for the submission's written portions.


16 Lilac Court Easement

Brantford, ON | Public Sector Project | Internship | Summer 2024

This project included a planting plan for a private landowner which proposed the addition of other species of shrubs, grasses, and ground cover plants.

- Under supervision of a landscape architect, I was tasked with:
- Drafting a planting plan in AutoCAD Civil 3D; and
 - Creating a plant list in InDesign for the homeowner's review.

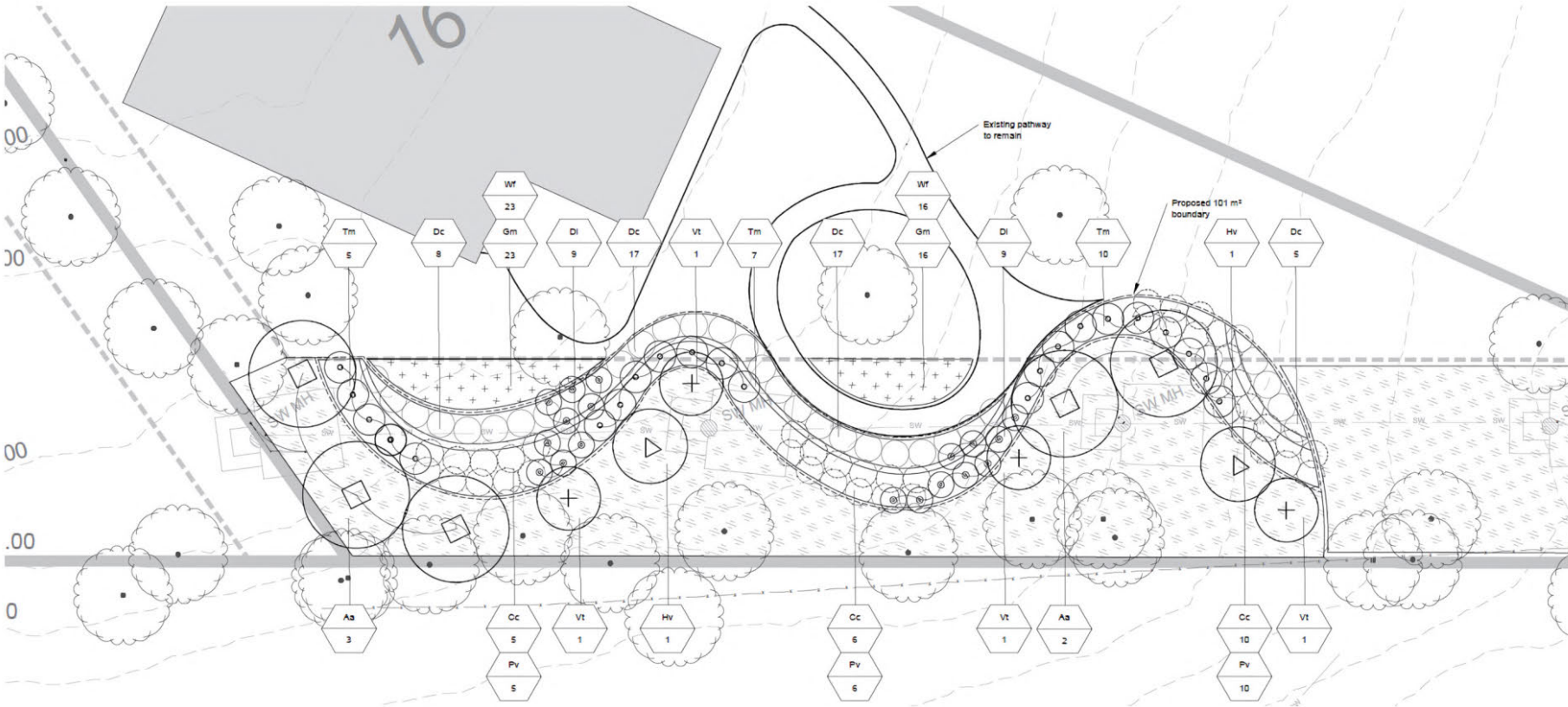
GRASSES

Canada Bluejoint Calamagrostis canadensis	Height	Spread	Flower Period	Colors
	1.00 m	0.60 m	2 months (late June/July-August)	Blue green Dark maroon Purple/blonde
Tufted Hairgrass Deschampsia cespitosa	0.60 m	0.60 m	3 months (June-September)	Dark/silver green Bright silvery-white Gold
Switchgrass Panicum virgatum	1.00 m	0.60 m	3 months (August-November)	Olive/metalic green Pink/purple/gold

GROUND COVERS

Wild Geranium Geranium maculatum	Height	Spread	Flower Period	Colors
	0.50 m	0.40 m	3 months (April-July)	Medium green Rose pink/lavender Red/orange

Plant List



PLANT LIST

SHRUBS						
Code	QNTY	Botanical Name	Common Name	Condition	Size	Remarks
Hv	2	Hamamelis virginiana	Witch-hazel	7 gal	175 cm	3 m OC
Vt	4	Viburnum trilobum	Highbush Cranberry	3 gal	50 cm	2 m OC
Tm	22	Taxus x media	Dense Yew	3 gal	50cm	1 m OC
Dl	18	Diervilla lonicera	Bush Honeysuckle	3 gal	50 cm HT	1 m OC
Aa	5	Amelanchier arborea	Downy Serviceberry	7 gal	150 cm HT	4 m OC

GRASSES						
Code	QNTY	Botanical Name	Common Name	Condition	Size	Remarks
Cc	21	Calamagrostis canadensis	Canada Bluejoint	Potted	1 g	0.5 OC
Dc	30	Deschampsia cespitosa	Tufted Hairgrass	Potted	1 g	0.5 OC
Pv	21	Panicum virgatum	Switchgrass	Potted	1 g	0.5 OC

GROUND COVER						
Code	QNTY	Botanical Name	Common Name	Condition	Size	Remarks
+ + +	39	Geranium maculatum	Wild Geranium	Potted	1 ltr	0.3 OC
+ + +	39	Waldsteinia fragarioides	Barren Strawberry	Potted	1 ltr	0.3 OC

SEED MIX S1			
LOW GROW GRASS MIXTURE			
Fowl Bluegrass	Poa palustris	25%	
Canada Wild Rye	Elymus canadensis	30%	
Little Blue Stem	Schizachyrium scoparium	15%	
Sand Dropseed	Sporobolus cryptandrus	30%	

SOWING RATE: 25 kg/ha

NURSE CROP: 50% Canada Wild Rye (Elymus canadensis), 50% Annual Oats (Avena sativa). To be seeded as nurse crop to control erosion at 22-25 kg/ha.

SUPPLIER: OSC

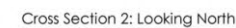
MAINTENANCE GUARANTEE PERIOD:

- THE MAINTENANCE GUARANTEE PERIOD FOR ALL LANDSCAPE WORKS SHALL BE A MINIMUM OF TWO (2) YEARS INCLUDING TWO (2) FULL GROWING SEASONS FOR ALL PLANT MATERIAL. MAINTENANCE ACTIVITIES SHALL COMMENCE UPON SUBSTANTIAL COMPLETION OF LANDSCAPE WORKS, OR PORTIONS THEREOF AS CERTIFIED BY THE CONTRACT ADMINISTRATOR OR LANDSCAPE ARCHITECT AND APPROVED BY THE CITY, AND SHALL CONTINUE UNTIL CERTIFICATION OF ACCEPTANCE OF LANDSCAPE WORKS.

GENERAL MAINTENANCE ACTIVITIES:

- GENERAL MAINTENANCE ACTIVITIES FOR TREES, SHRUBS AND GROUNDCOVERS SHALL BE PERFORMED AT A MINIMUM OF ONCE PER GROWING SEASON AND SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING.
- WATERING (IN ADDITION TO WATERING AT TIME OF PLANTING/SODDING/SEEDING) TO ENSURE AND MAINTAIN CONTINUOUS HEALTHY GROWING CONDITIONS THROUGHOUT THE MAINTENANCE PERIOD AND DURING DROUGHT CONDITIONS.
 - WEED CONTROL: CULTIVATION AND/OR HAND REMOVAL OF WEEDS IN PLANTING BEDS.
 - ESTABLISHMENT OF DENSE VEGETATIVE COVER: ENSURE ALL GAPS, CREATED BY DEAD, DISEASED OR LEGGY MATERIAL ARE FILLED. GROUND COVERING LAYER SHALL BE ASSESSED AFTER YEAR ONE AND GAPS SHALL BE FILLED TO ENSURE SUFFICIENT COVERAGE IS OBTAINED PRIOR TO CERTIFICATION OF ACCEPTANCE OF LANDSCAPE WORKS.
 - DISEASE AND INSECT CONTROL: METHOD AND APPLICATION SHALL BE TO THE APPROVAL OF THE CITY.
 - PRUNING OF DEAD AND DAMAGED BRANCHES: WOUND DRESSING AS REQUIRED.
 - RAISING AND/OR STRAIGHTENING OF TREES AND SHRUBS: ADJUST ALL TREES AND SHRUBS THAT LEAN, RECTIFYING TREE STAKES AND SUPPORTS AS NEEDED. TREES AND SHRUBS THAT HAVE SETTLED SHALL BE RAISED TO THE SATISFACTION OF THE CONTRACT ADMINISTRATOR AND LANDSCAPE ARCHITECT.
 - BURLAP WRAPPING OF ALL CONIFER SPECIES PRIOR TO WINTER.
 - ANY OTHER PROCEDURE CONSISTENT WITH GOOD HORTICULTURAL PRACTICE NECESSARY TO ENSURE NORMAL, HEALTHY GROWTH OF PLANTED MATERIAL.

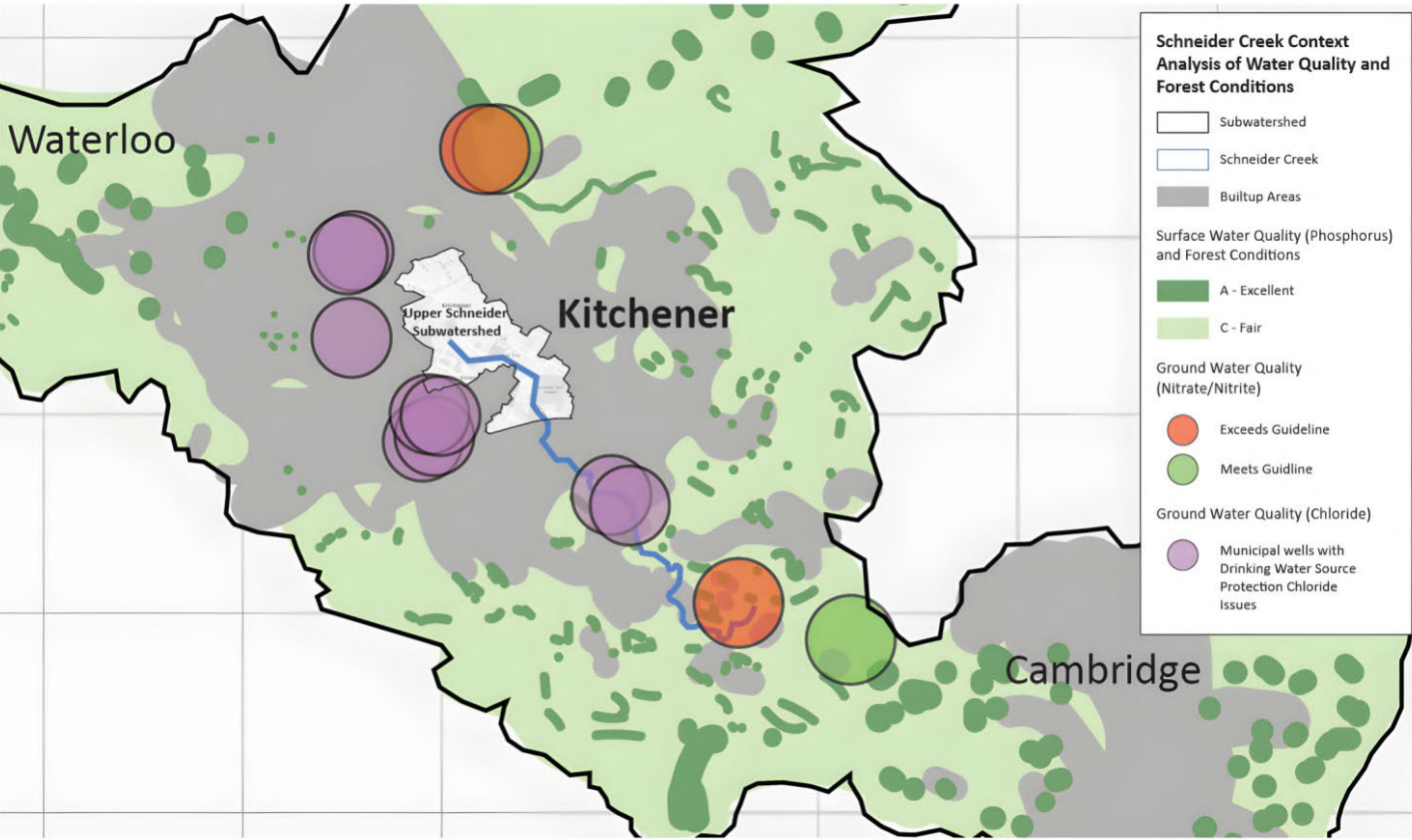
Site Plan and Features



Cross Sections



Landscape Details



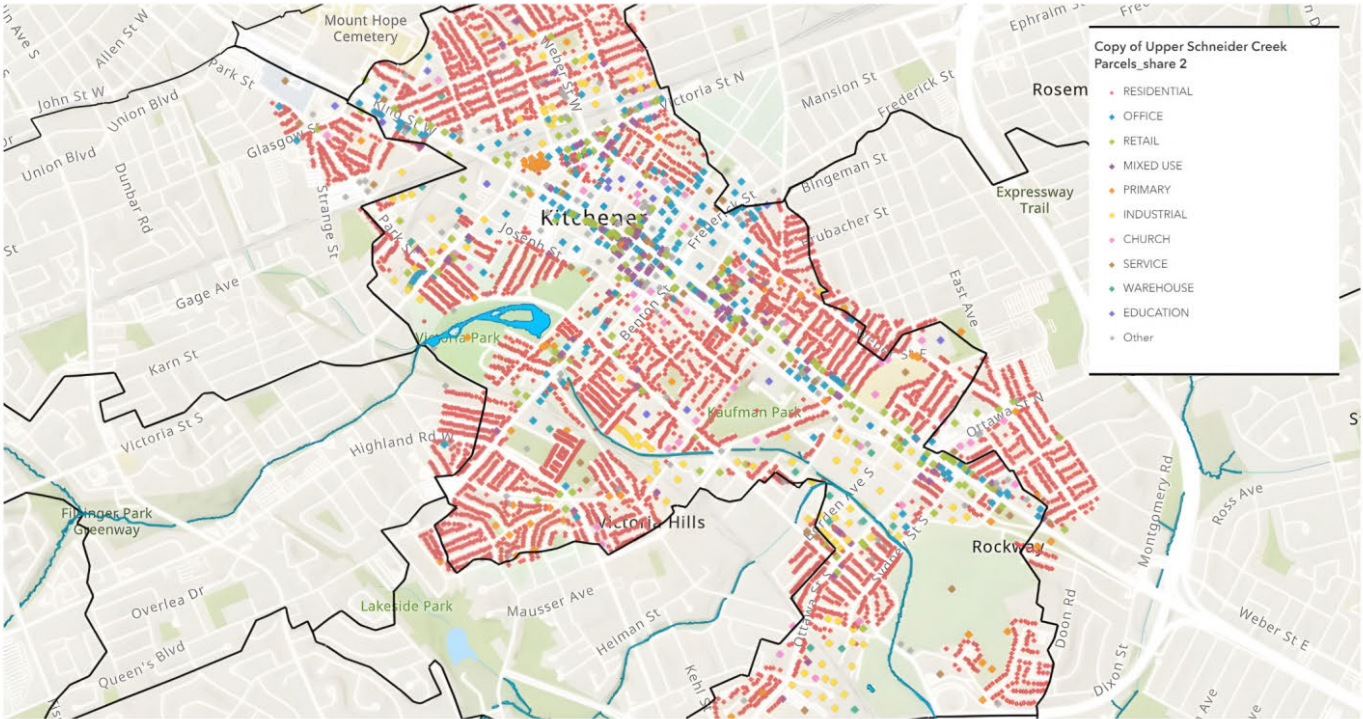
Schneider Creek Context Analysis

A Greener Schneider Creek

Kitchener, ON | Regional Design Project | Third Year | Fall 2023

This project's objective was to propose a redesign concept to a property in Kitchener that would divert as much stormwater as possible from Schneider Creek's subwatershed and achieve the best results when implemented on a larger scale.

The concept for this project was based on GIS research and relied on reports from various sources, including Municipal Class Environmental Assessment Subwatershed Health Analysis. The scope of work was narrowed down to where Shoemaker Creek intersects with Schneider Creek where it is directly receiving water with high chloride concentration. To propose a concept that would achieve the most extensive results, the scope of work focused on the residential properties since they reflect the majority of the subwatershed.



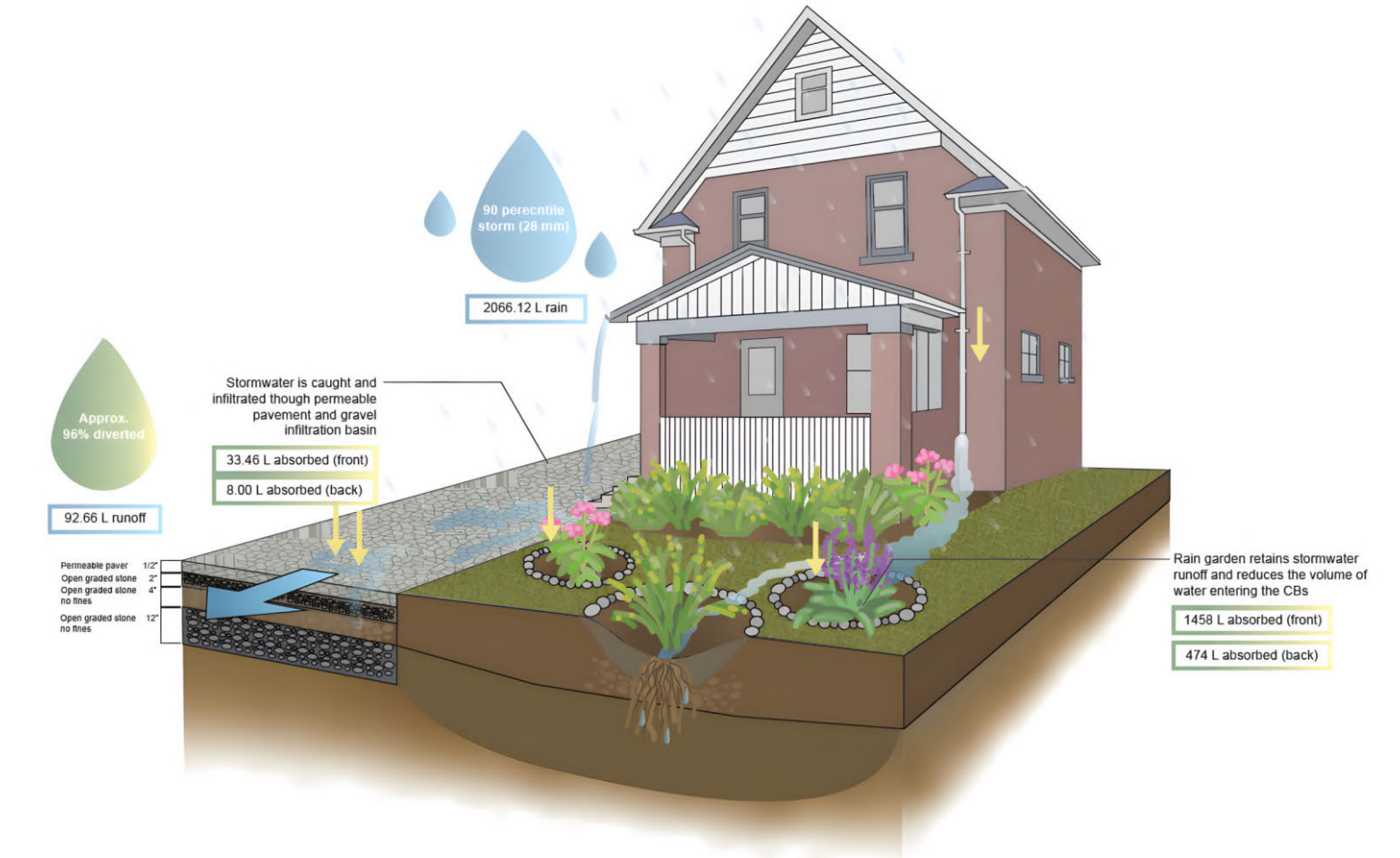
Schneider Creek Subwatershed Parcel Analysis



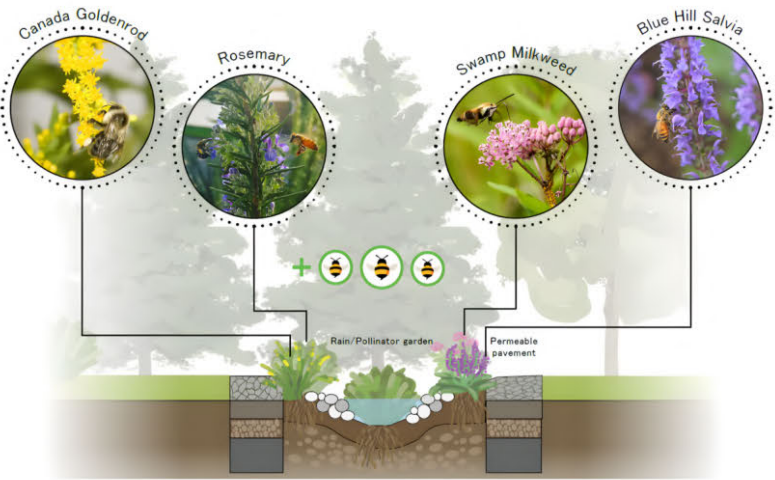
Property Context Analysis



Illustrative Plan



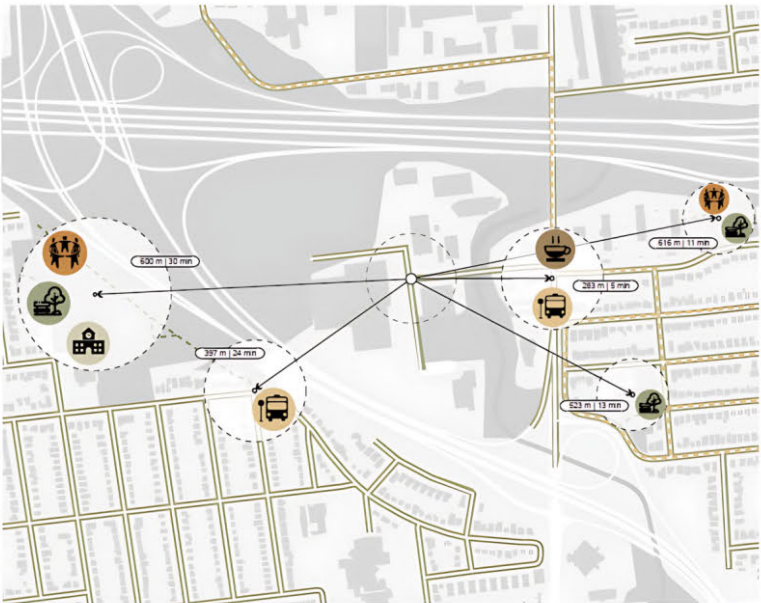
Water Flow Axonometric



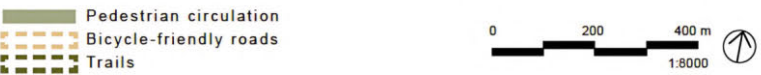
Rain Garden Section & Plant Palette

The concept focused on reducing the amount of chloride in the creek and suggested implementing permeable paving and five rain gardens which would successfully divert 96% of the stormwater from entering the creek during a 90 percentile storm event. It also created a habitat for Bumble Bees through the use of pollinator gardens.

This project was presented to projects managers and landscape architects from Kitchener.



Pedestrian Circulation & Walkability 04 - Analysis



Natural Heritage & Improvements 06 - Analysis



Bubble Diagram



SWOT Analysis

Eco-Nexus (Leon's Site)

Toronto, ON | Urban Design Group Project | Third Year | Fall 2024

This group project involved proposing a re-design concept for Leon's Site in Toronto. This concept prioritized nature over infrastructure. It supported the TRCA's Natural Heritage System objectives through dedicating 15% of the site to multi-functional green space with native plants for year-round vibrancy. The plan also included 4,000 residential units – 20% affordable – diverse housing types, commercial areas, and midrise and highrise buildings.

- My responsibilities included:
- Drafting circulation, natural heritage inventory, and SWOT analysis;
 - Developing a bubble diagram and masterplan; and
 - Designing the project schematic package.



Masterplan 1 Naturalized area 2 Playground/park 3 Community garden 4 Community centre Green roof --- Bike lane 0 20 40 60 80 m 1:2500



Illustrative Plan



Plant Palette

Eco-Cherry Park

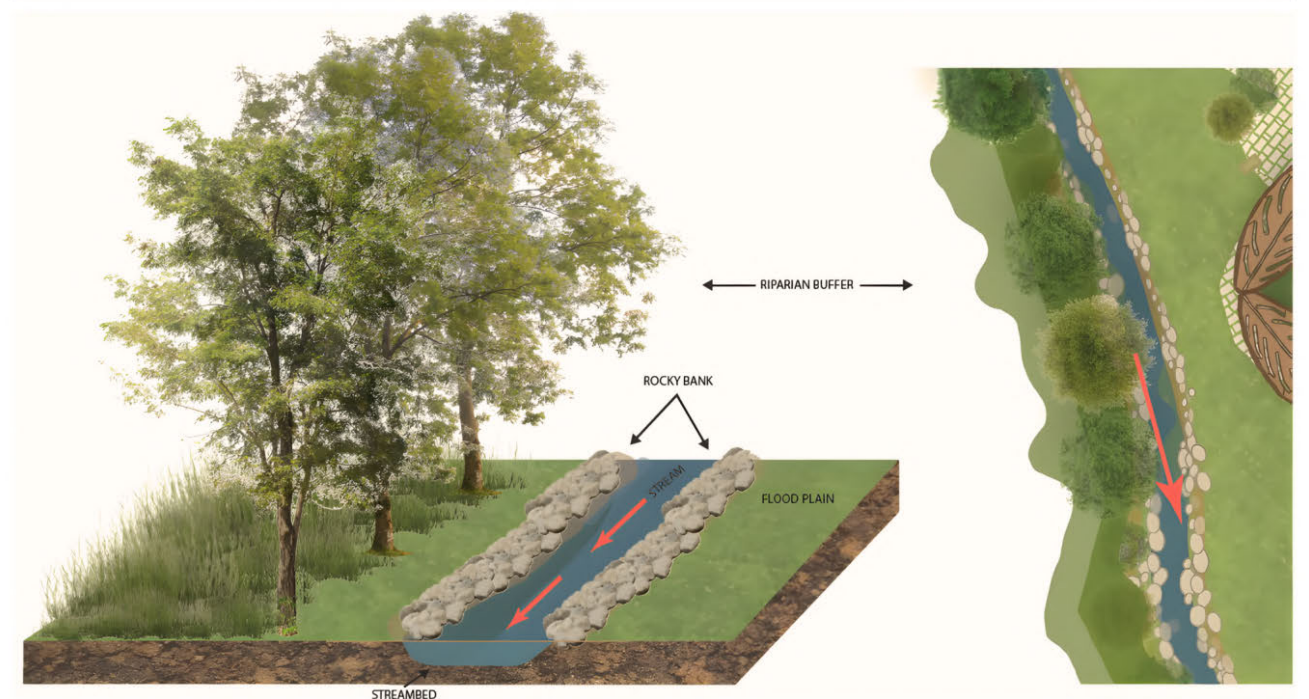
Kitchener, ON | Regional Design Group Project | Third Year | Fall 2023

This group project was concerned with revitalizing the ecological potential of Cherry Park in Kitchener through a balance of SWM, habitat design, and public-use programming. The proposed design touched on various concept principles, including sustainable mobility, community engagement, sustainable water management, and aesthetic harmony to improve the quality of life for residents physically and emotionally while mitigating the negative impacts of urbanization on the environment. It addressed the City of Kitchener's Natural Heritage goals of habitat conservation and utilized sustainable materials throughout the site.

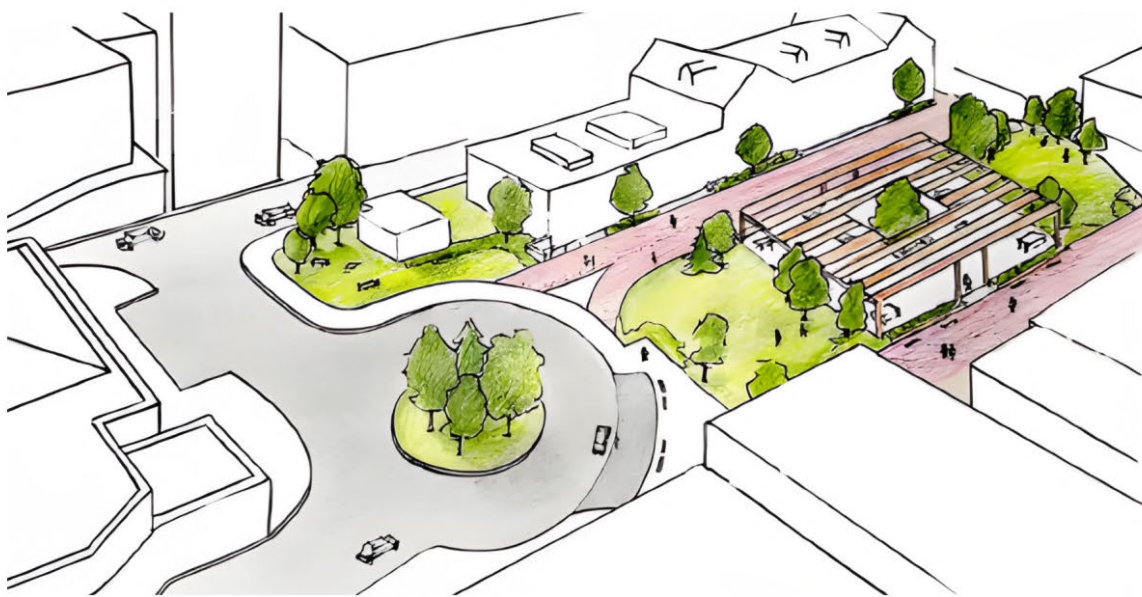
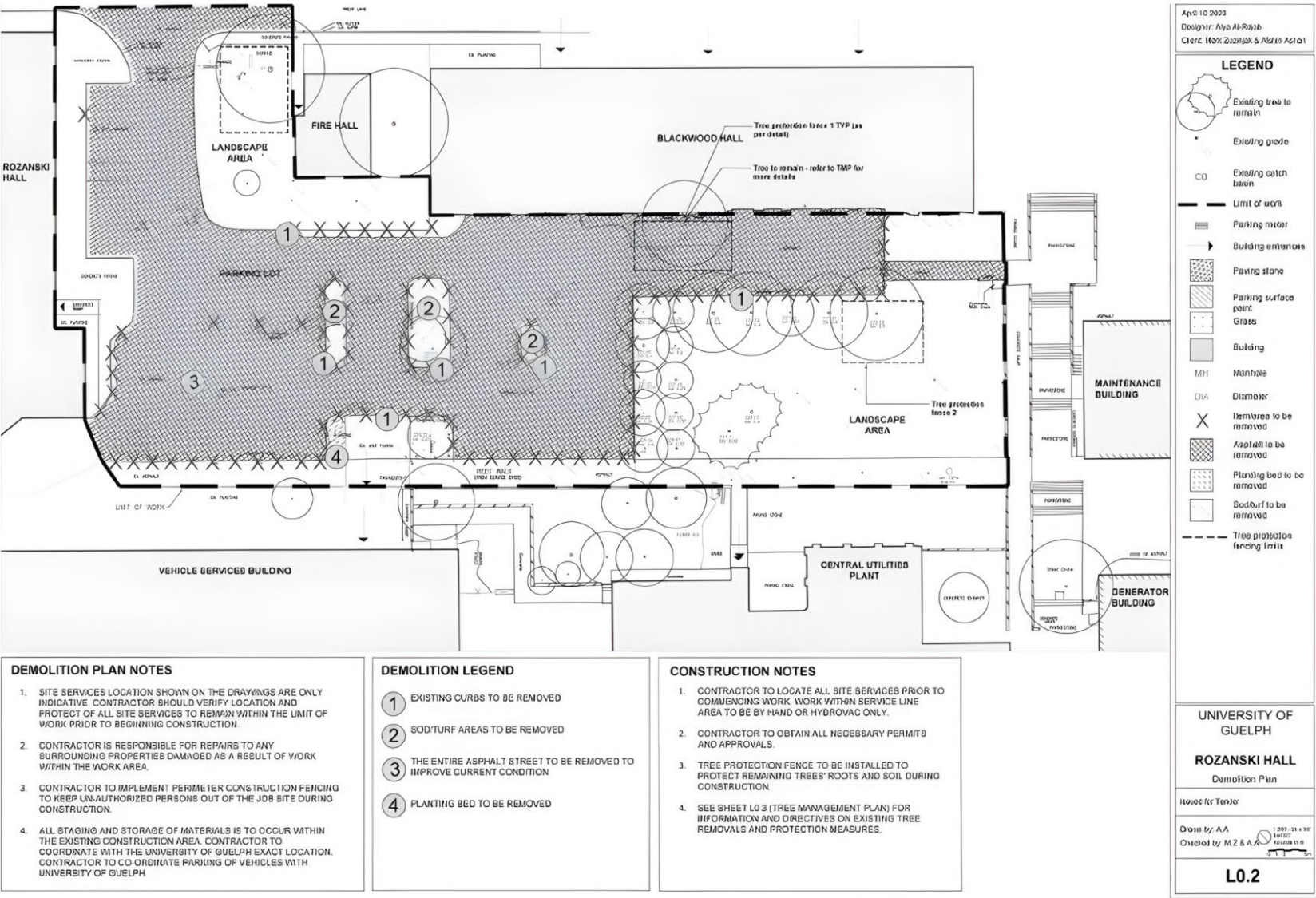
My tasks included:

- Developing species and site context analysis and incorporating SWM research;
- Creating the illustrative plan, plant palette, and stream axonometric; and
- Laying out the project panels.

The project was presented to engineers and project managers from Kitchener.



Stream Axonometric



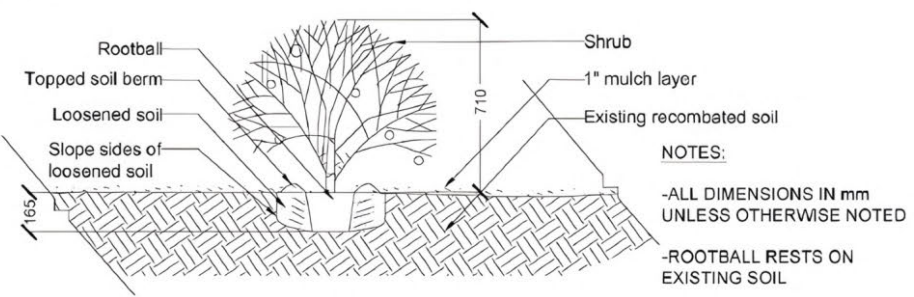
Concept Sketch

Rozanski Hall Plaza

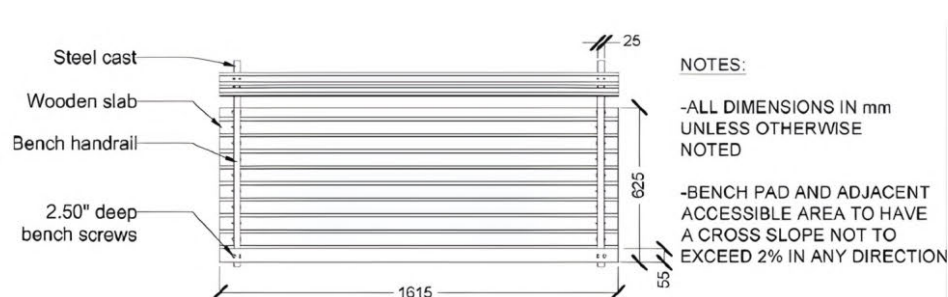
Guelph, ON | Construction Project | Second Year | Winter 2023

The goal of this project was to communicate the technical part of project development through creating a series of 8 construction drawings which illustrated a re-design concept for the Rozanski Hall plaza at the University of Guelph. This project also included crafting a cost estimate excel sheet. The concept proposed to incorporate a round-about, rain gardens, various seating options, accessible walkways, and gracious amount of vegetation.

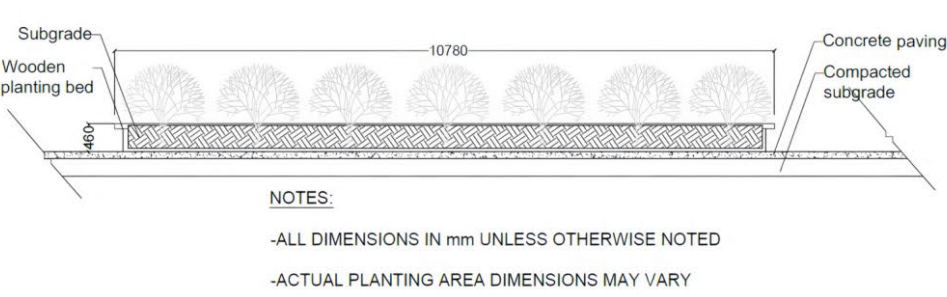
Demolition Plan



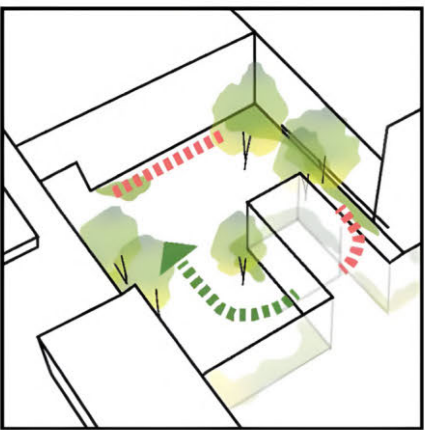
Shrub Planting Profile



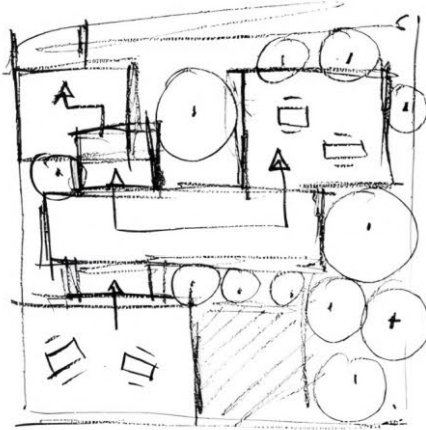
Bench on Paving Plan Detail



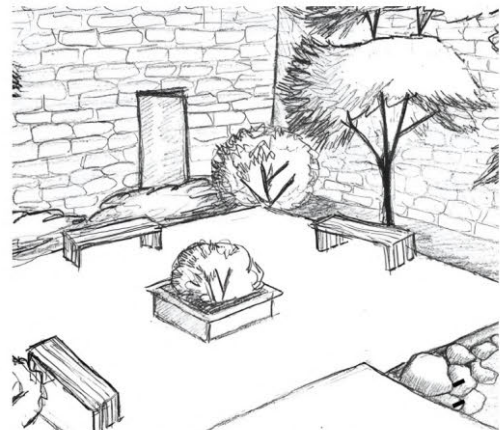
Typical Planting Bed Profile Detail



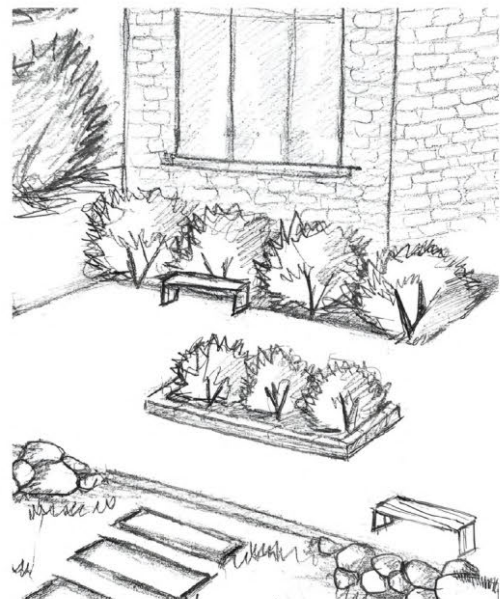
Circulation Analysis



Concept Sketch



Seating Area Perspective Drawing



Walkway Perspective Drawing

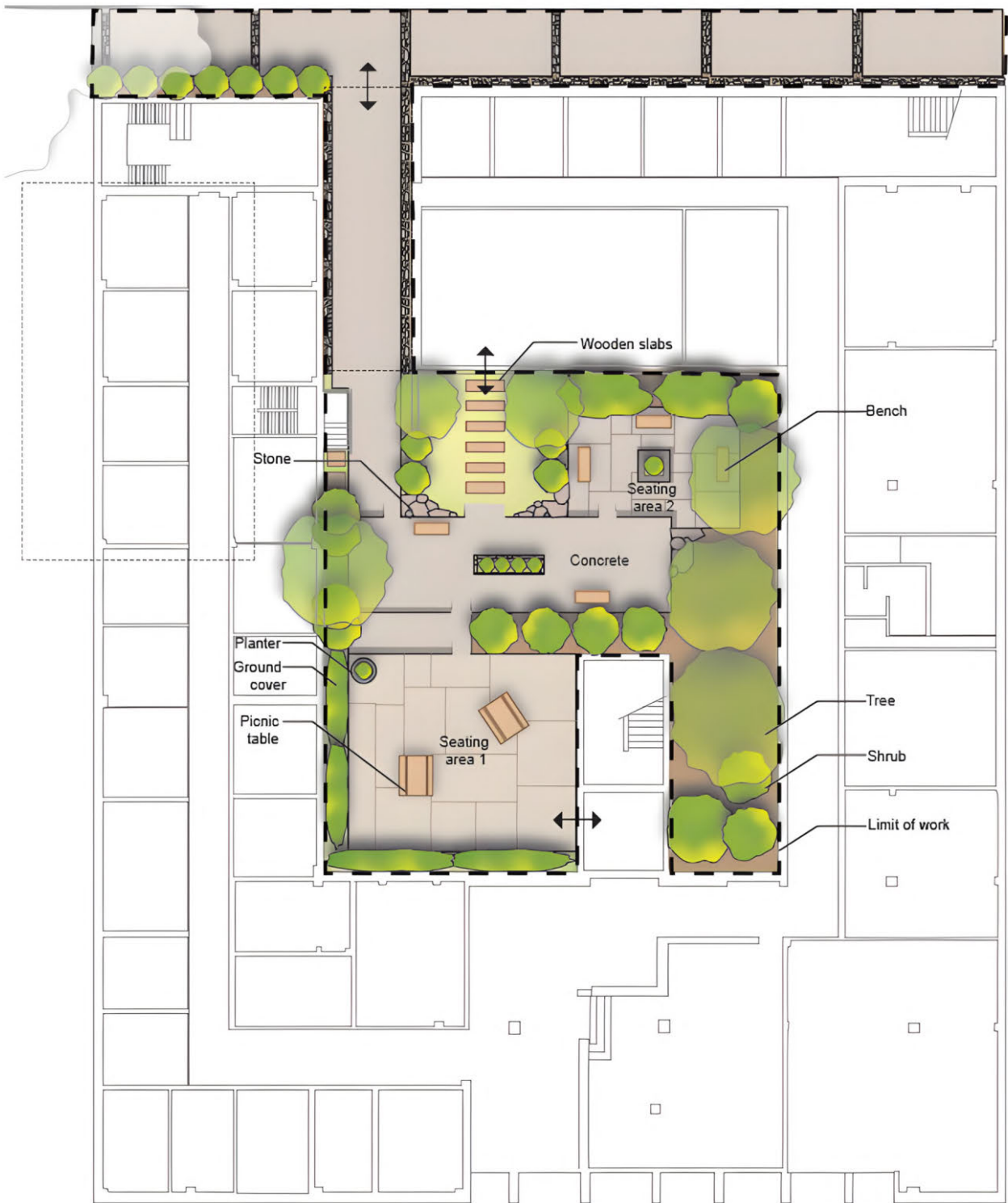
LA Building Courtyard
Guelph, ON | Construction Project | Third Year | Fall 2023

The goal of this project was to generate a re-design concept for the Landscape Architecture building courtyard at the University of Guelph.

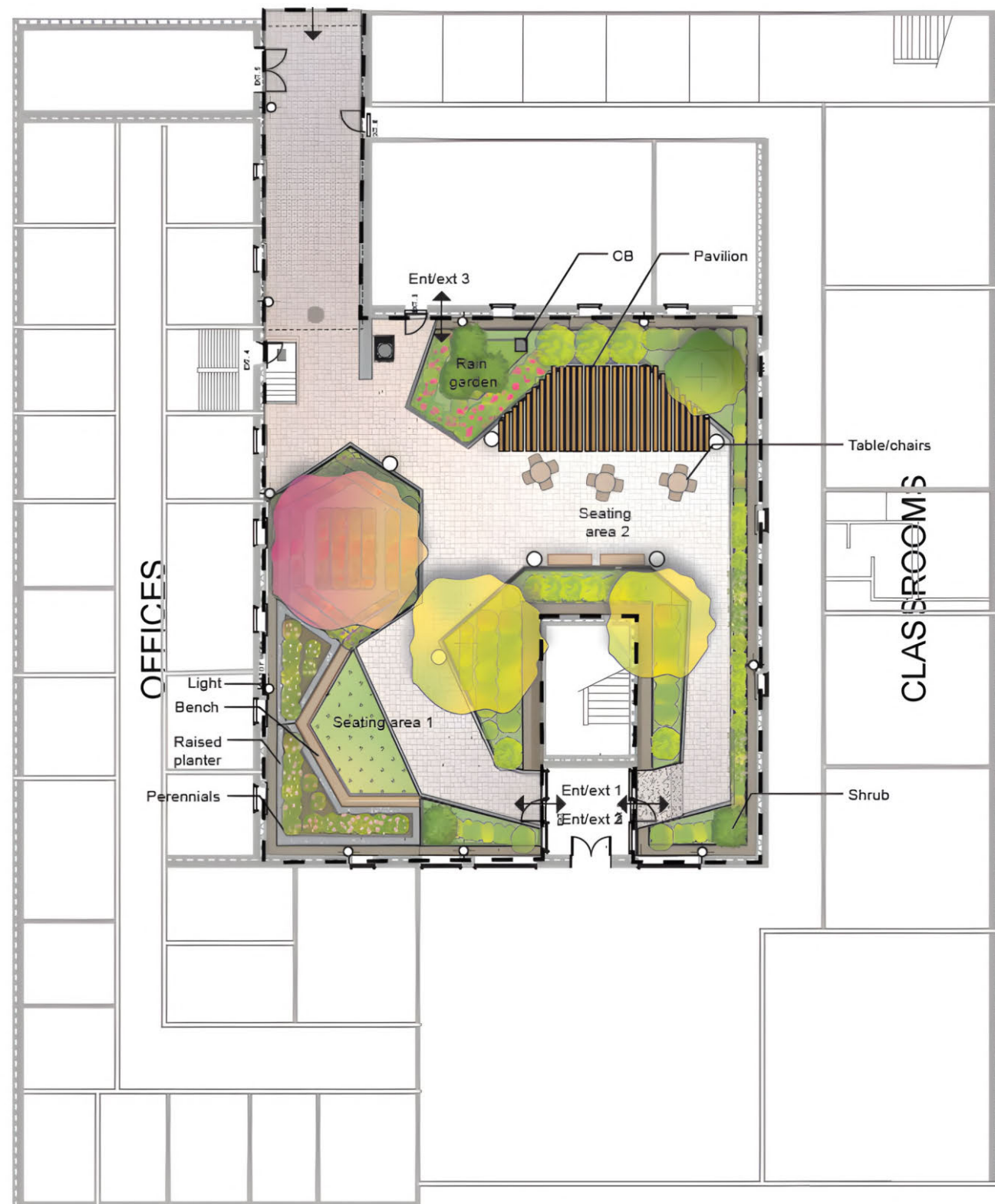
Part 1 (schematic - individual): This design offered to modernize the past version of the courtyard while preserving its place in history. It incorporated ancient landscape architecture materials to create a space that would inspire students for inspiration and utilized elevation to create multiple interactive spaces.



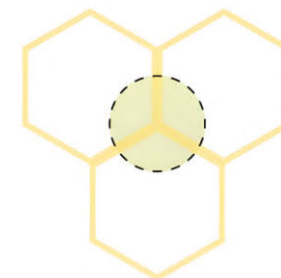
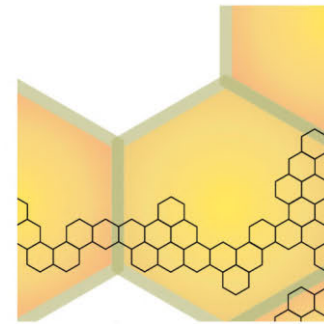
Full Site Section Elevation



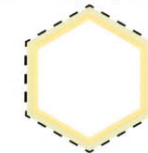
Illustrative Plan



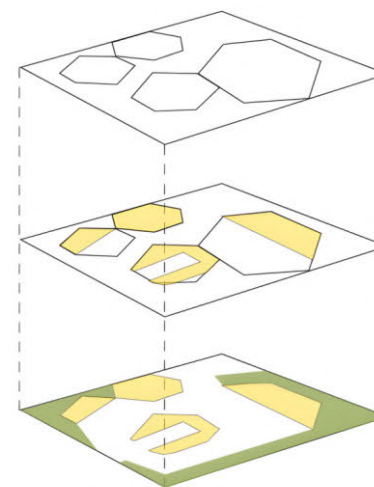
Illustrative Plan



Hexagonal Packing
Minimizes space perimeter

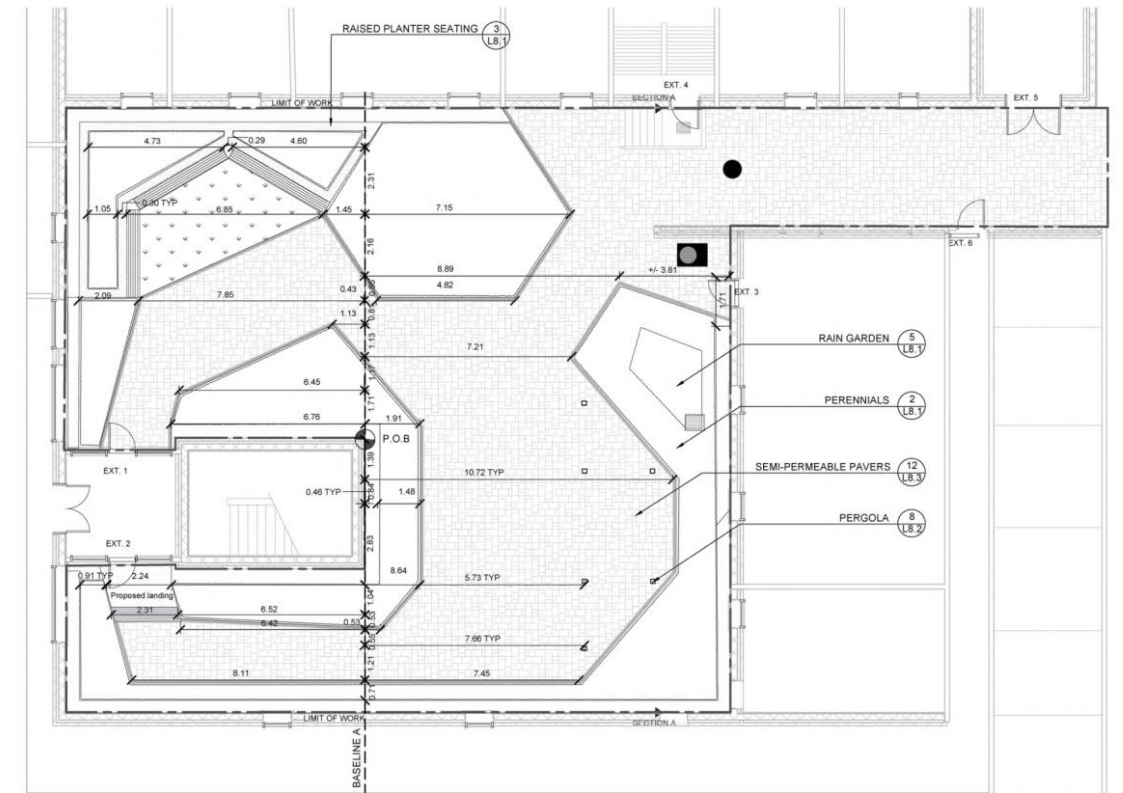


Hexagonal Shape
Maximizes storage, minimizes material waste, and provides stability



Hexagonal Configuration
Forms the main focal points and circulation of the design

Concept Diagrams



Site Layout and Dimension Plan

LA Building Courtyard: Eco-Hex

Guelph, ON | Construction Project | Third Year | Fall 2023

Part 2 (schematic and construction - group): This design focused on the visual as well as the functional aspect of the hexagon shape as an element that promotes connection, circulation, and stability in nature. It offered a variety of seating options/styles, accessible walkways, and native plantings with year-round interest that create habitat for bees. Supplemented with these visuals was a layout plan as part of the construction drawing set.

My tasks included:

- Creating the concept diagrams;
- Rendering the illustrative plan;
- Designing the project schematic package; and
- Drafting the construction site layout and dimension plan.



Sketchbook

Guelph, ON | Site Analysis Project | Second Year | Fall 2022

This sketchbook project comprised various visual communication exercises that encouraged training in hand-drawn illustrations. It employed data presentation techniques and timely sketches which were then utilized to assist in design projects.



10-Minute Sketch



1-Minute Sketch

15-Minute Thumbnail Sketches

— **AVR** —

2025