

PLANNING FOR PERTH
Student Work // research and design



ARCS3304 - Urbanism on the Periphery
3rd-year Undergraduate Studio - Fall 2024
Instructor // Assoc. Prof. Catherine Bonier

DESIGNING FOR THE FUTURE



The work shared in this booklet was created by students of my 3rd-year undergraduate urbanism studio in fall of 2024. Students pursued site study and independent and group review of Perth's municipal design guidelines, and were able to build from a current residential proposal for the site.

These students will go on to design and develop the built environment. Their brilliance, commitment, and creativity will create a future that will be more equitable and inclusive. While the framing of the studio was my own, the students developed and agreed to a series of guidelines to be followed. It is impressive that undergraduates were able to consider ways to design towards long-term, shared benefits. Their visits to Perth as a class and independently gave them a clear sense of the value of this town, and of the dangers of any development that fails to make space both for the environment and for a growing and increasingly diverse community.

A few disclaimers -- First, since our students may go on to work for design firms or government agencies that develop for larger urban areas, they were allowed to design a 'complete community' with more mixed-use areas and more intensification than Perth may now need. Secondly, students took a range of approaches to per hectare calculations, and there may be some miscalculations here. Thirdly, any errors of approach are mine, but the creativity and vision entirely belong to this fantastic group of young people.

// Associate Professor Catherine Bonier, January 2025

PRESERVING OUR FUTURE



Le travail partagé dans ce livret a été créé par des étudiants de mon studio d'urbanisme de 3e année de premier cycle à l'automne 2024. Les étudiants ont poursuivi une étude du site et un examen indépendant et en groupe des directives de conception municipales de Perth, et ont pu construire à partir d'une proposition résidentielle actuelle pour le site.

Ces étudiants continueront à concevoir et développer l'environnement bâti. Leur génie, leur engagement et leur créativité créeront un avenir plus équitable et inclusif. Même si l'encadrement du studio était le mien, les étudiants ont élaboré un plan tout en respectant les lignes directrices à suivre. Il est impressionnant que les étudiants de premier cycle aient pu réfléchir à des moyens de concevoir des projets visant à obtenir des avantages à long terme, de façon partagée. Leurs visites à Perth en classe et de manière indépendante leur ont donné une idée claire de la valeur de cette ville et des dangers de tout développement qui ne parvient pas à faire de la place à la fois pour l'environnement et pour une communauté croissante et de plus en plus diversifiée.

Quelques avertissements -- Premièrement, étant donné que nos étudiants peuvent ensuite travailler pour des entreprises de design ou des agences gouvernementales qui développent des zones urbaines plus grandes, ils ont été autorisés à concevoir une « communauté complète » avec plus de zones à usage mixte et plus d'intensification pour Perth, qui en a maintenant besoin. Deuxièmement, les étudiants ont adopté diverses approches pour calculer par hectare, et il peut y avoir ici quelques erreurs de calcul. Troisièmement, toutes les erreurs d'approche vis-à-vis les projets sont de ma faute, mais la créativité et la vision appartiennent entièrement à ce fantastique groupe de jeunes.

// Professeure agrégée Catherine Bonier, janvier 2025

Project Guidelines Developed by Students

Many thanks to Divyashree Macheri Yathiraj, Dominic Massé,
and Julianna Avramidis for their work assembling, translating,
and editing the Planning for Perth Studio Booklet!

Material/ Natural/ Physical

- Hydrological Context

- 30m buffer around wetland
- Consider drainage direction

- Permeable Surfaces

- Minimum 50% impermeable surfaces per lot
- Minimum 35% of developable area green space or park

- Water Management Network

- Woodland buffer zone
- Bioswales
- Wetland buffer zone

- Wetland

- Natural habitats
- Endangered species

Social/ Cultural/ Communal

- Community Relationships

- Strong connectivity from public space to another

- Social Infrastructures

- Foster meaningful interactions between different age groups
- Festival strip alongside community centers and parks
- Multi-faith center

- Festivals

- Expansion of Perth's festival strip to enhance the city's vibrant event culture

- Citizen Wants

- Heritage
- Small-town atmosphere
- Promotion of Local Events
- Environmental Protection + Climate Change
- Ensuring Capacity of All Infrastructure
- Job Opportunities for Diverse Skill Sets
- Affordable Housing

Intensification/ Imagination/ Visualization

- Densification

- Higher density up to 200 units per hectare

- Visualization

- Inclusion of diverse age groups
- Variety of activities and lifestyles
- Elements of seasonality

- Intensification

- Introduction of multi-unit housing
- Family housing with room for expansion and terraces
- Senior living with easy accessibility
- Student housing
- Communal space with shared activities and small businesses

Infrastructure/ Uses/ Economics

- Path & Trails

- Providing trails and other pedestrian and bike infrastructures
- Developing at the human scale
- Providing trails throughout the wetland (minimize impacts)

- Point of Access and Egress

- Necessity of a second bridge
- Consider sites for the second bridge
- Central road connecting the two points of access

- Transit

- Connecting the site to the rest of the town
- Development and integration of public transit

(all unattributed images by students)

Lignes Directives

Développé par des étudiants

Un grand merci à Divyashree Macheri Yathiraj, Dominic Massé et Julianna Avramidis pour leur travail d'assemblage, de traduction et d'édition du livret Planning for Perth Studio !

Matériel/ Nature/ Physique

- Contexte Hydrologique

- Zone de recule de 30 m autour des zones humides
- Direction d'écoulement des eaux de pluie

- Surfaces Perméables

- Minimum 50% de surfaces imperméables par lot
- Minimum 35 % de la superficie aménageable réservée au parc

- Réseau de Baisses Biologiques

- Zone de recule forestière
- Baisses biologiques
- Zone de recule des zones humides

- Zones Humides

- Habitats naturels
- Espèces menacées

Social/ Culturel /Communauté

- Relations Communautaires

- Une forte connectivité d'un l'espace public à l'autre

- Infrastructures Sociales

- Favoriser des interactions significatives entre les différents groupes d'âge
- Bande de festival à côté de centres communautaires et de parcs
- Centre multiculturel

- Festivals

- Agrandissement de la zone des festivals

- Désirs des Citoyens

- Patrimoine
- Ambiance de petite ville
- Promotion d'événements locaux
- Protection de l'environnement + Changement climatique
- Assurer la capacité de toutes les infrastructures
- Opportunités d'emploi pour divers ensembles de compétences
- Logement abordable

Intensification/ Imagination/ Visualisation

- Densification

- Densité plus élevée jusqu'à 200 unités par hectare

- Visualisation

- Inclusion de divers groupes d'âge
- Variété d'activités et de modes de vie
- Éléments de saisonnalité

- Intensification

- Introduction de logements collectifs
- Logement familial avec possibilité d'agrandissement et terrasses
- Résidence pour personnes âgées facilement accessible
- Logement étudiant
- Espace commun avec activités partagées et petites entreprises

Infrastructures/ Usages/ Économie

- Sentiers Nature

- Fournir des sentiers et autres infrastructures piétonnières
- Se développer à l'échelle humaine
- Fournir des sentiers dans toute la zone humide

- Point d'Accès et de Sortie

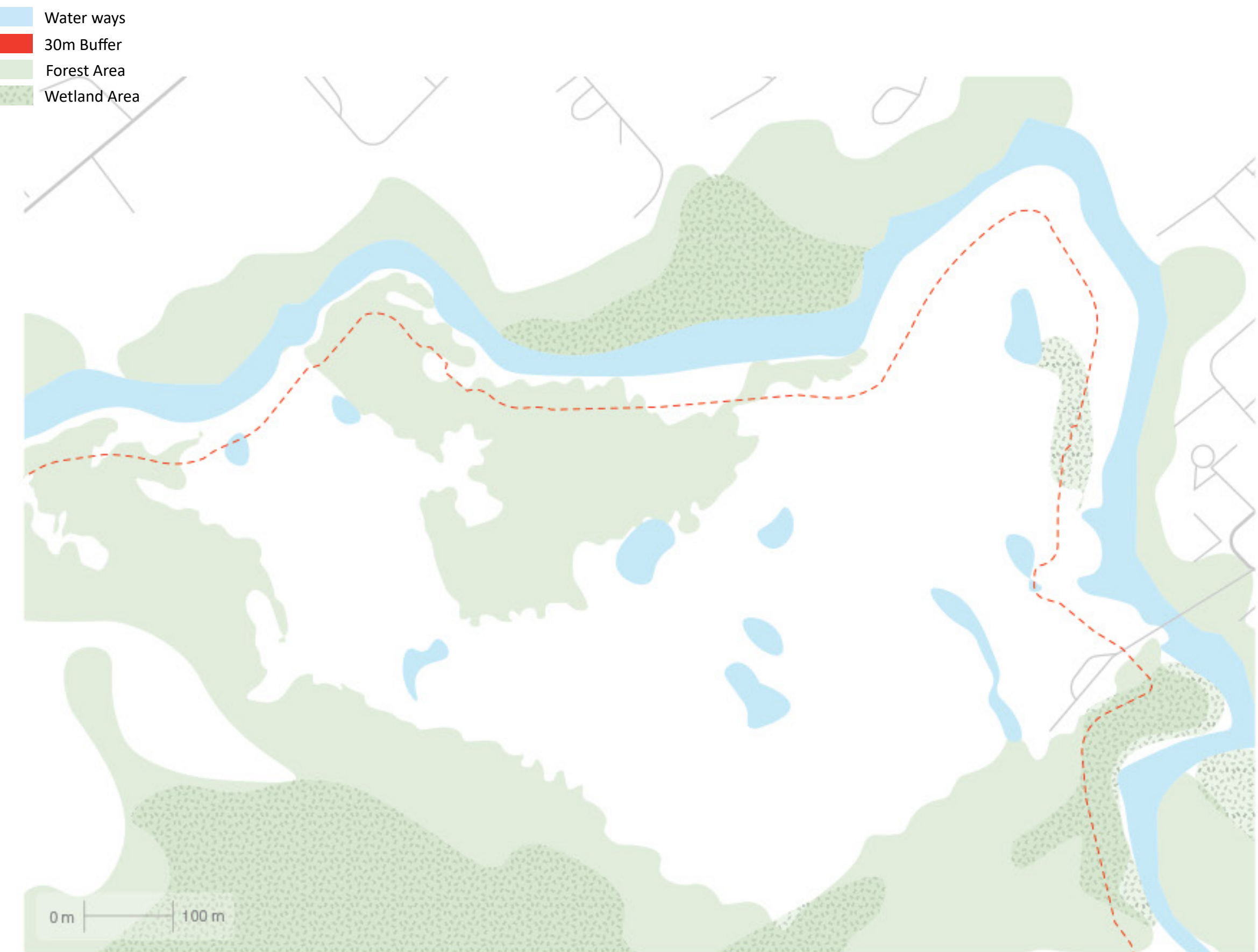
- Nécessité d'un deuxième pont
- Envisager des sites pour le deuxième pont
- Route centrale reliant les deux points d'accès

- Transit

- Relier le site au reste de la ville
- Développement et intégration du transport en commun

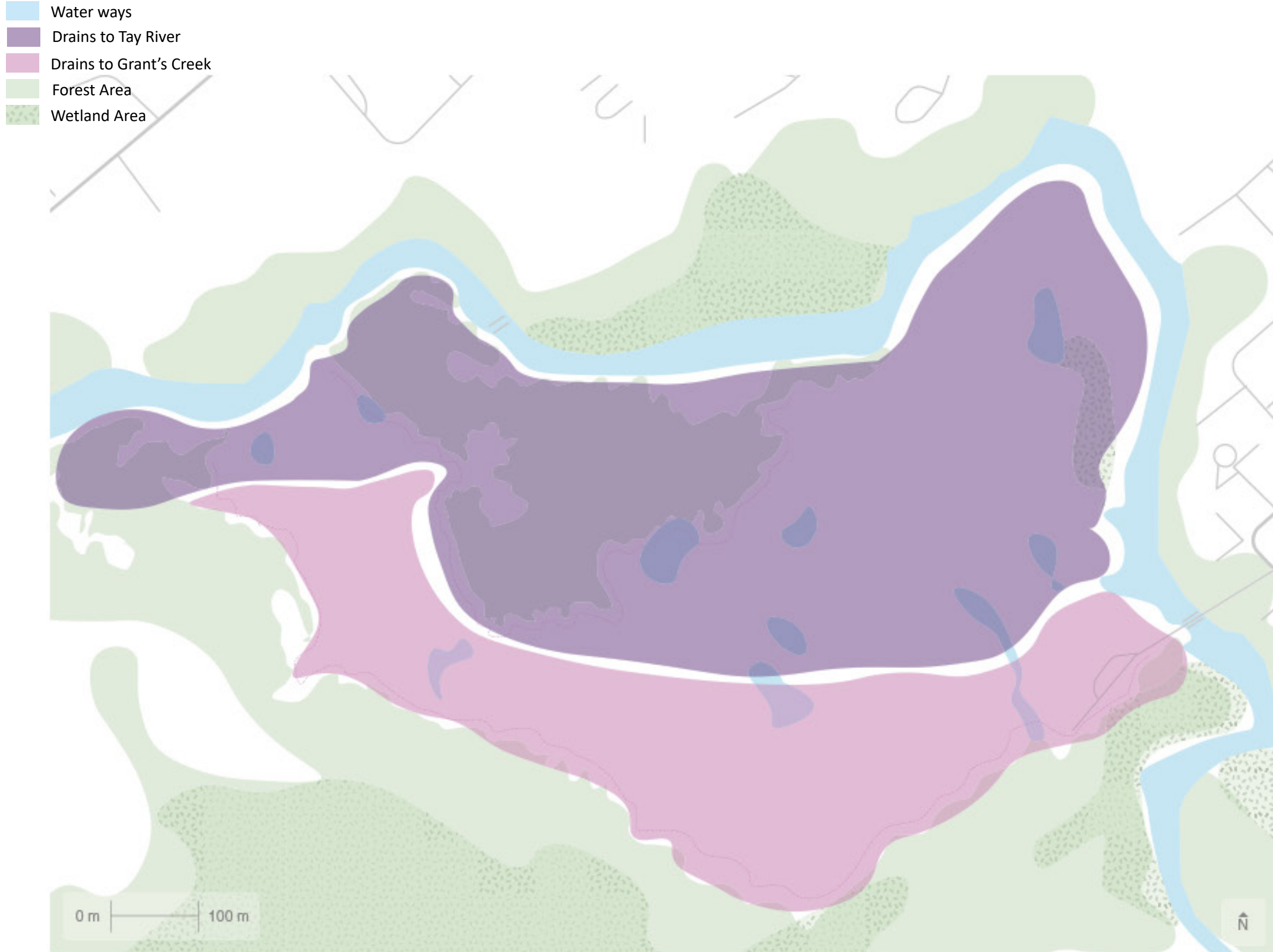
(toutes les images non attribuées
par les étudiants)

Hydrological Context / Contexte Hydrologique



30 Meter Buffer

The site is located between two watersheds, the TayRiver and Grant’s Creek. Not only do these natural features act as critical habitats for Perth’s native wildlife, but they also comprise Perth’s municipal water supply . As a result, the Perth Environmental Impact Assessment provides a minimum buffer of 10 meters from significant wetlands, with a recommended buffer of 30 meters.



Drainage Direction

Le site est situé entre deux cours d’eau, la rivière Tay et le ruisseau Grant. Non seulement ces éléments naturels constituent d’ habitats essentiels pour la faune originale de Perth, mais ils constituent également à l’approvisionnement pour l’eau municipale de Perth. Par conséquent, l’évaluation de l’impact environnemental de Perth prévoit une zone de recule minimale de 10 mètres par rapport aux zones humides importantes, avec une zone de recule recommandée de 30 mètres.

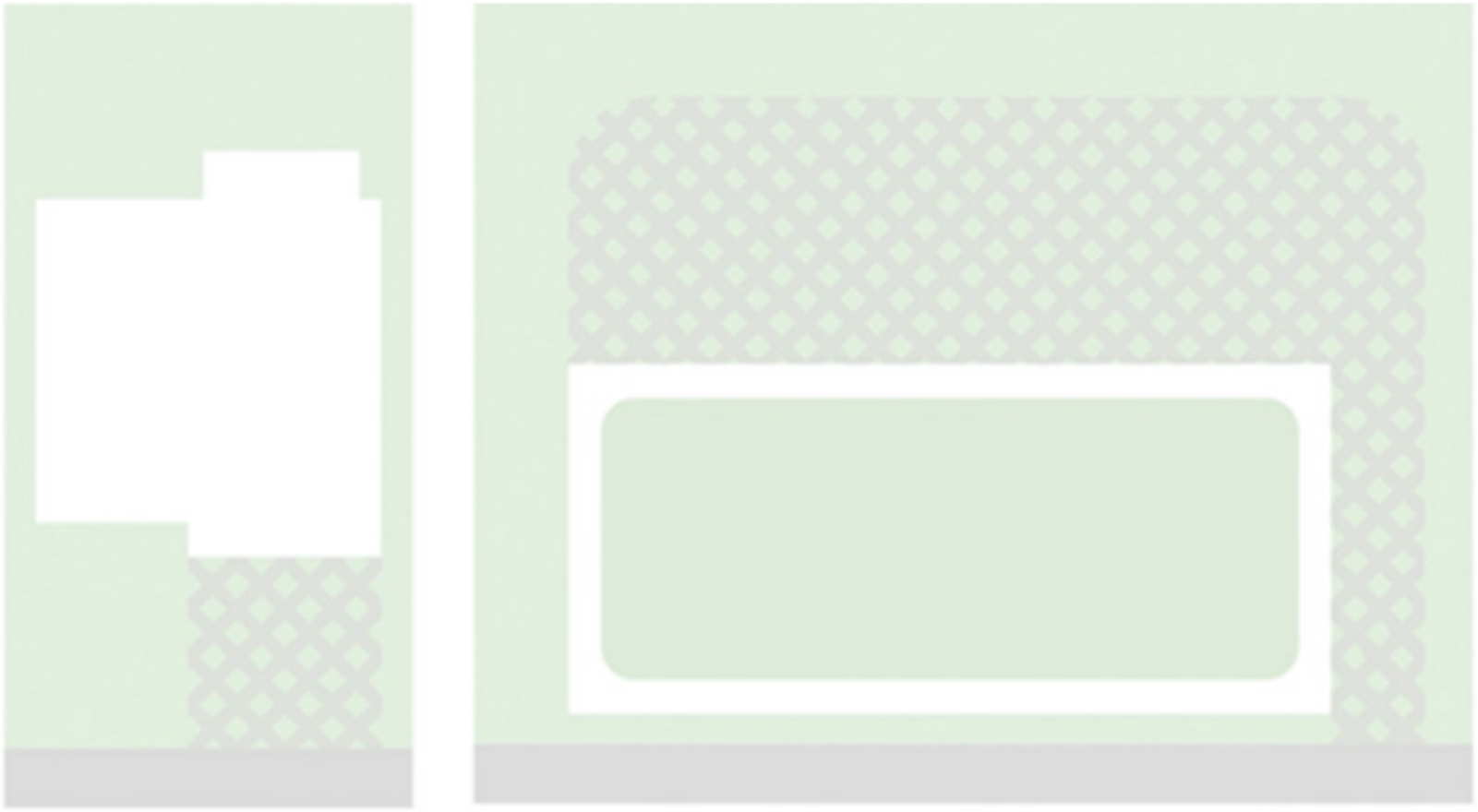
Permeable Surfaces / Surfaces Perméables

All development must implement a minimum of 50% impermeable surfaces per lot. A minimum of 35% of net developable area must be reserved for public open spaces supporting humans, plants, and animals.

Tous les développements doivent respecter un minimum de 50 % de surfaces imperméables par lot. Un minimum de 35 % de la superficie nette aménageable doit être réservé à des espaces publics ouverts abritant les humains, les plantes et les animaux.



Caivan Proposal



Proposed Solution



Park Space

Caivan’s plan includes 42 foot single family detached lots, which assumes a 30:70 ratio of permeable to impermeable surfaces. On the right, we show a typical multi-unit residential building, which could range in height and land use, but adhering to the same lot depth for easy comparison. This study, with surface parking, grossed a percentage of 25% permeability.

The site is located between two watersheds, the TayRiver and Grant’s Creek. Not only do these natural features act as critical habitats for Perth’s native wildlife, but they also comprise Perth’s municipal water supply . As a result, the Perth Environmental Impact Assessment provides a minimum buffer of 10 meters from significant wetlands, with a recommended buffer of 30 meters.

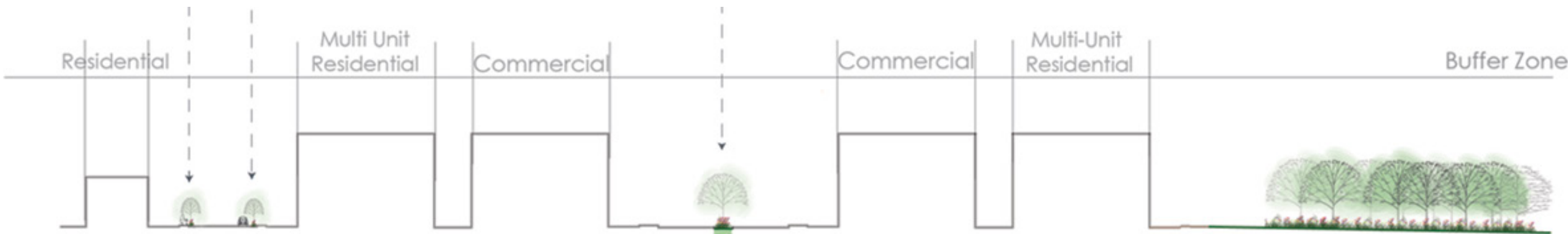
Throughout the site, we will incorporate several large parks along buffer zones that act as conservation areas for the nearby Tay River and its wetlands. This trail system will extend throughout the site as a green corridor to surrounding neighbourhoods and other smaller parks and parkettes meant for more accessible and leisurely activities. The bioswales dispersed throughout the site will bring the wetland environment to residents’ doorsteps while providing the flood mitigation necessary to sustain this community.

Le plan de Caivan comprend des lots unifamiliaux détachés de 42 pieds, qui offre un rapport de 30:70 entre surfaces perméables et imperméables. Sur la droite, nous montrons un immeuble résidentiel à logements multiples typique, dont la hauteur et l’utilisation du sol peuvent varier, mais qui adhère à la même profondeur de lot pour faciliter la comparaison. Cette étude, avec stationnement en surface, a abouti à un pourcentage de perméabilité de 25%.

Voici quelques interventions; des aires de stationnement réalisées avec un revêtement perméable et des toits verts peuvent être mises en œuvre pour atteindre objectif en matière de superficie perméable par lot. La même empreinte au sol d’une maison unifamiliale avec une aires de stationnement perméable atteint désormais 50 % de perméabilité, tandis que la même résidence multi-logement atteint 90 % de perméabilité. Nous reconnaissons la différence entre l’absorbance dans le sol et l’absorbance dans les surfaces perméables manufacturées comme les toits verts, et encourageons l’inclusion des deux méthodes dans le développement ultérieur.

Sur tout le site, nous intégrerons plusieurs grands parcs le long de zones de recul qui serviront de zones de conservation pour la rivière Tay et ses zones humides. Ce réseau de sentiers s’étendra sur tout le site sous la forme d’un couloir vert jusqu’aux quartiers environnants et à d’autres parcs et parkettes destinés à des activités plus accessibles et plus tranquilles. Les basses biologiques dispersées sur tout le site amèneront l’environnement de zone humide aux portes des résidents tout en fournissant l’atténuation nécessaire contre les inondations pour faire vivre cette communauté.

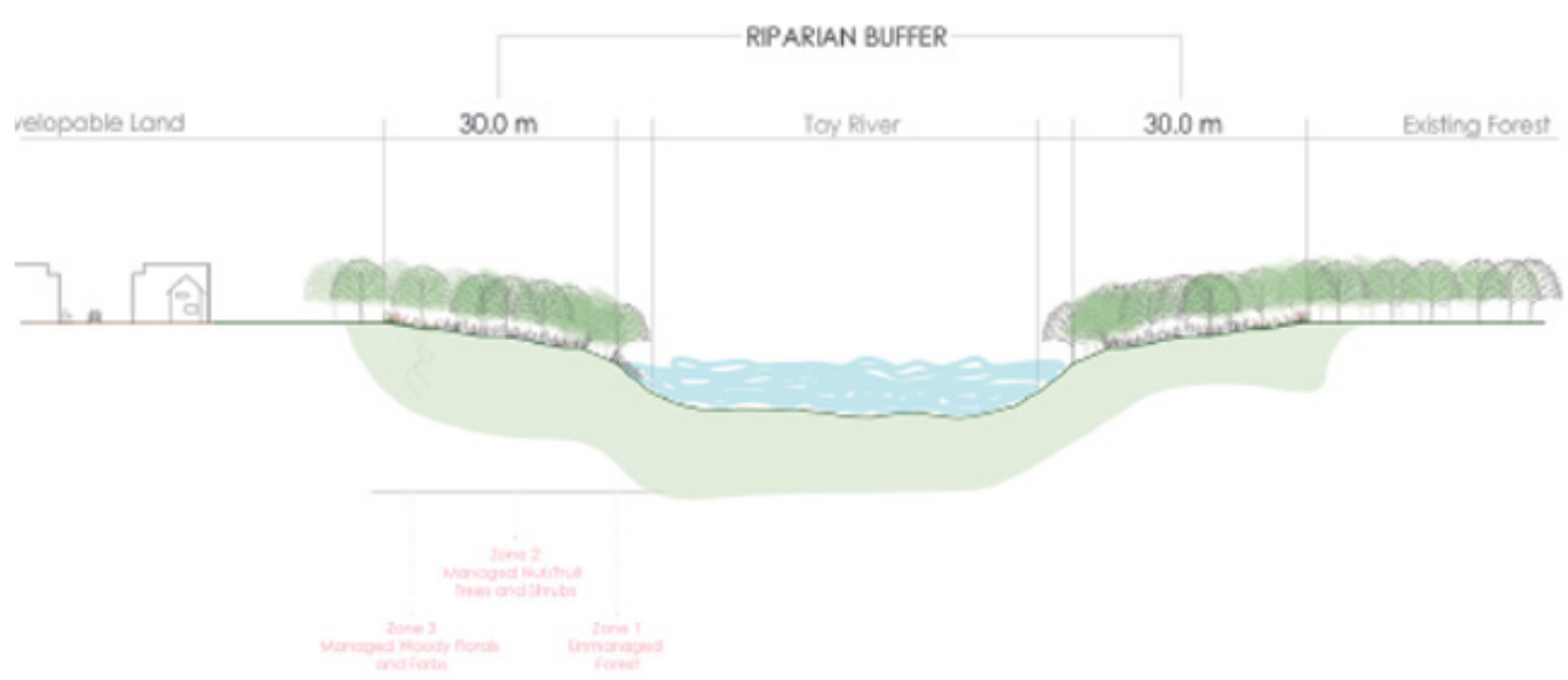
Bioswales Network / Réseau de Baisses Biologiques



Woodland Buffer Zone



Bioswales



Wetland Buffer Zone

Buffer zones prohibit developed land from encroaching on existing forests, wetlands, and other important environmental areas. They protect water quality, reduce erosion, and provide a natural habitat for local wildlife.

Bioswales are landscape features that filter polluted stormwater runoff while enhancing environmental growth. They can be placed along road networks, in parks and plazas, and near buffer zones.

Our design proposals will follow the site's existing buffer zone around the Tay River to ensure proper flood protection and improve the site's ecological health.

Les zones de recul interdisent aux terres aménagées d'empiéter sur les forêts existantes, les zones humides et d'autres zones environnementales importantes. Elles protègent la qualité de l'eau, réduisent l'érosion et fournissent un habitat naturel à la faune locale.

Les baisses biologiques sont des éléments paysagers qui filtrent les eaux de ruissellement polluées tout en favorisant la croissance environnementale. Ils peuvent être placés le long des réseaux routiers, dans les parcs et les places, ainsi qu'à proximité des zones de recul.

Nos propositions de conception suivront la zone de recul existante du site autour de la rivière Tay pour assurer une protection adéquate contre les inondations et améliorer la santé écologique du site.

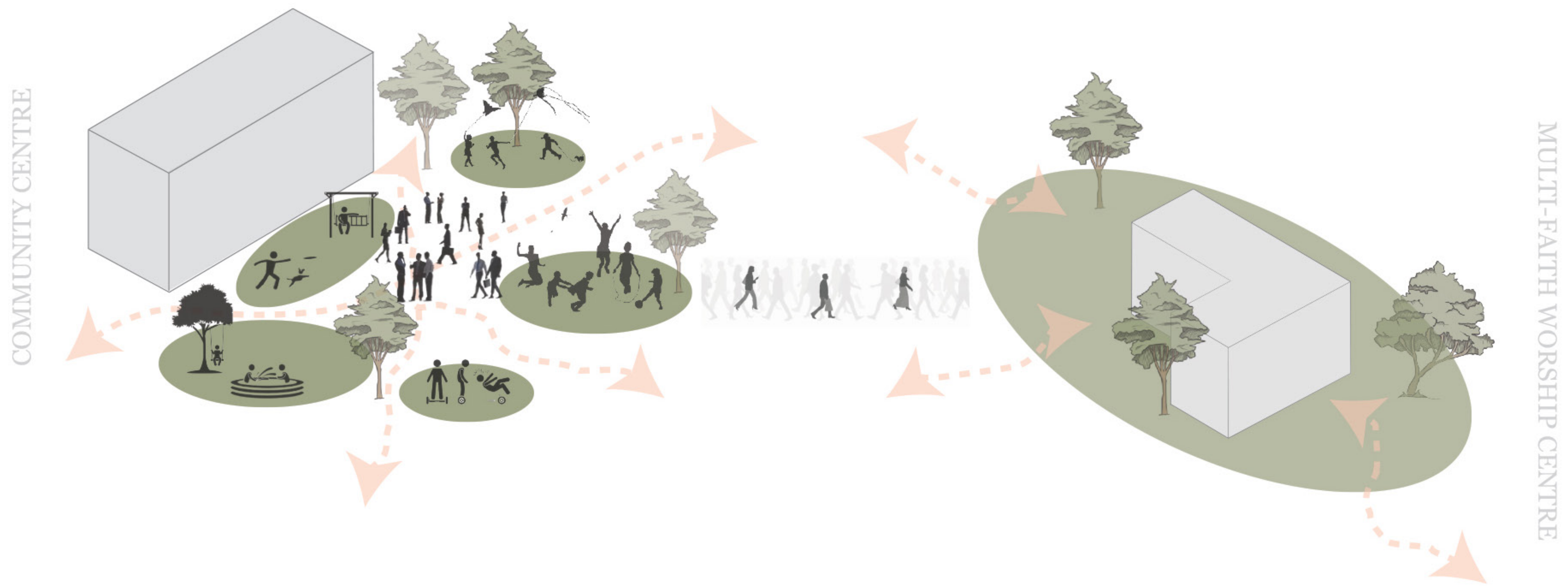
Wetland / Zones Humides

Surrounding our site are vital wetlands that serve as habitats for diverse endangered and threatened species, including black ash tree, Little Brown Myotis bat, Barn Swallows, Blanding’s turtle, and the Western Chorus frog.

Autour de notre site se trouvent des zones humides vitales qui servent d’habitats à diverses espèces en voie de disparition, notamment le frêne noir, la petite chauve-souris brune, l’hirondelle rustique, la tortue mouchetée et la rainette faux-grillon de l’ouest.



Community Relationships / Relations Communautaires



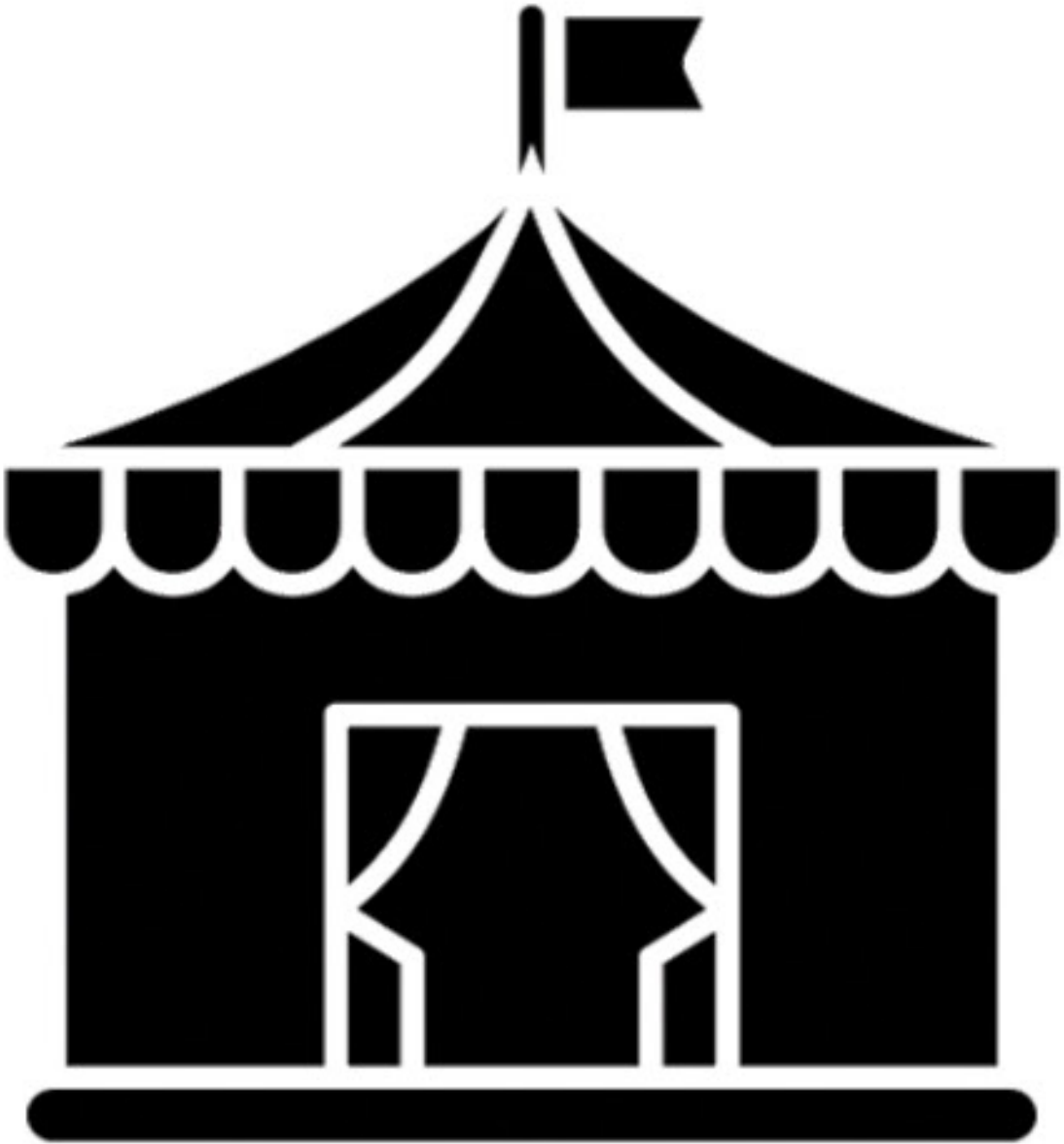
These diagrams illustrate the connection between the community center and multi-faith building and how we envision the space being utilized. The community center actively fosters a sense of community interaction and engagement through various programs and activities, while the pathway shown in between the two buildings showcases movement and interaction, encouraging people to easily transition from one space to another. This arrangement enhances accessibility and creates an inviting environment that encourages people to gather and connect with one another.

Ces diagrammes illustrent le lien entre le centre communautaire et le bâtiment multiconfessionnel et la façon dont nous envisageons l'espace utilisé. Le centre communautaire favorise activement un sentiment d'interaction et d'engagement communautaire à travers divers programmes et activités, tandis que le chemin tracé entre les deux bâtiments met en valeur le mouvement et l'interaction, encourageant les gens à passer facilement d'un espace à un autre. Cet agencement améliore l'accessibilité et crée un environnement invitant qui encourage les gens à se rassembler et à communiquer les uns avec les autres.

Social Infrastructures / Infrastructures Sociales

The Town of Perth’s current social infrastructure is largely designed to serve specific demographics and religious groups, creating barriers to inclusivity for the broader, more diverse community expected to settle in the area. A comprehensive analysis of existing facilities and critical gaps highlighted the need for three key developments: an intergenerational community center, a multi-faith center, and a festival strip.

L’infrastructure sociale actuelle de la ville de Perth est en grande partie conçue pour servir une certaine démographie et des groupes religieux spécifiques, créant des obstacles à l’inclusion pour la communauté plus large et plus diversifiée qui cherche à s’installer dans la région. Une analyse complète des installations existantes et des lacunes critiques a mis en évidence la nécessité de trois développements clés : un centre communautaire intergénérationnel, un centre multiculturel et une place diverses festivals.



Intergenerational engagement will foster meaningful interactions between different age groups, breaking down barriers and promoting a sense of belonging and mutual support for across generations.

Festival strip alongside community centers and parks that offer spaces accessible to people of all ages, backgrounds, and interests aligning with the 8 years old to 80 years old rule for accessibility.

With a new influx of new populations of diverse religious and cultural backgrounds as they move into a predominantly Christian town like Perth, access to places of worship (mosques, temples, synagogues and others) allows these communities to preserve their cultural and religious practices in a new environment.

L’engagement intergénérationnel favorise les interactions entre les différents groupes d’âge, éliminant les barrières et promouvant un sentiment d’appartenance et de soutien mutuel entre les différentes générations.

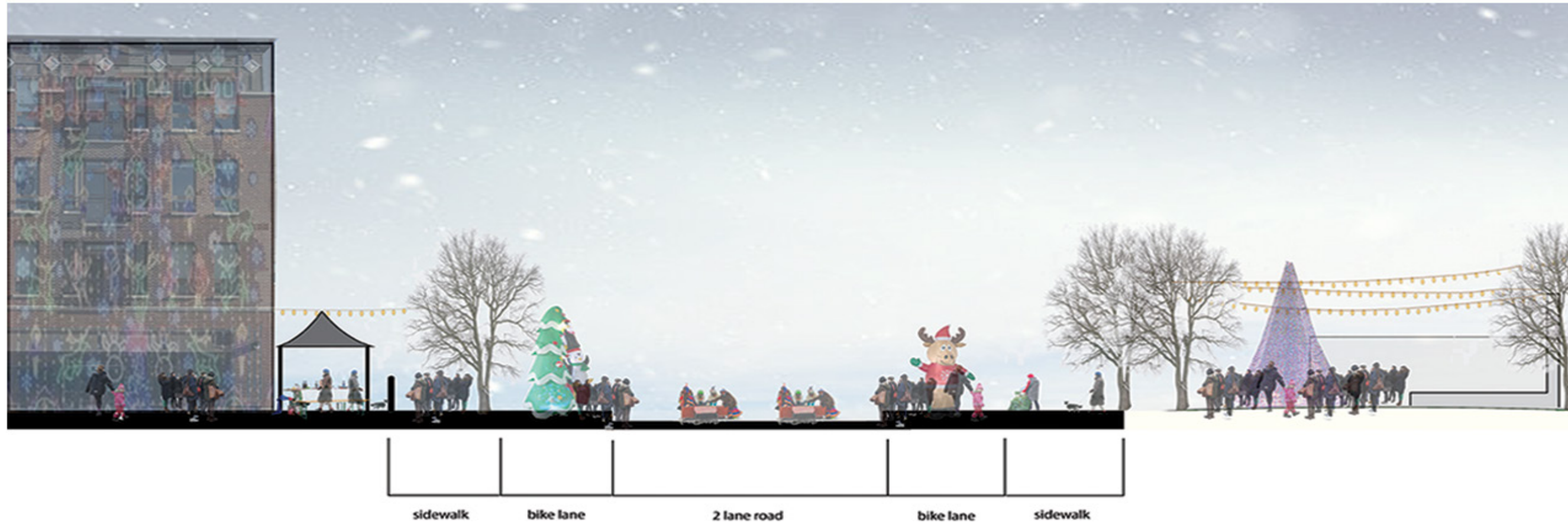
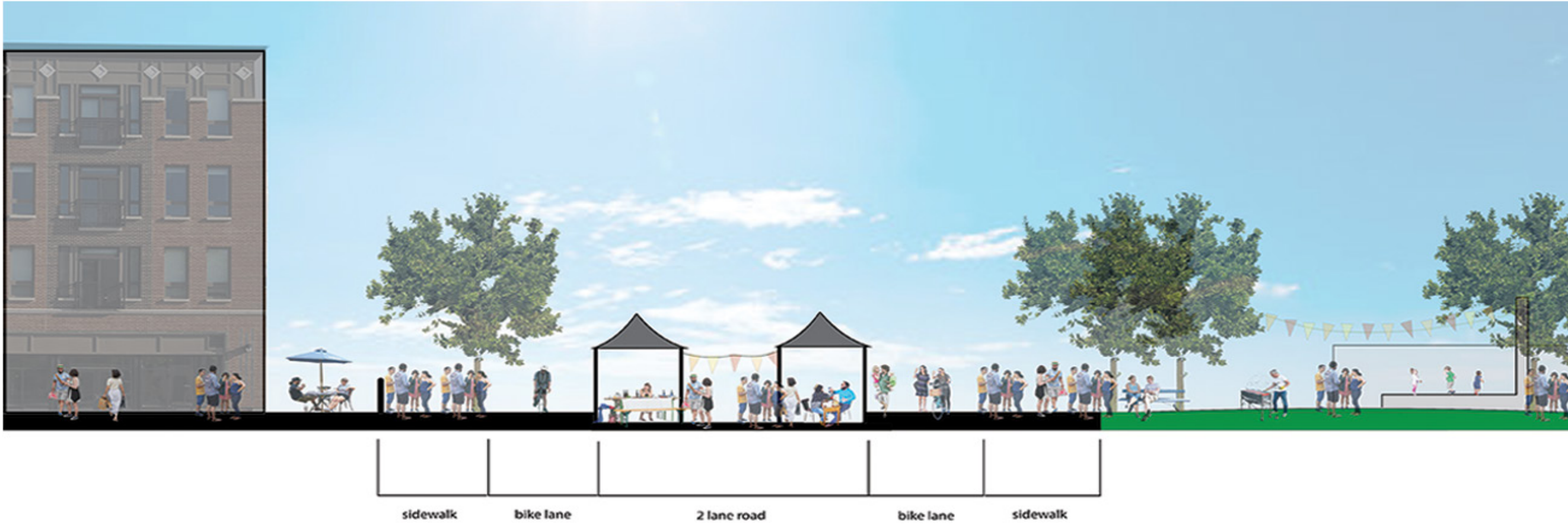
Le festival côtoie les centres communautaires et les parcs qui offrent des espaces accessibles aux personnes de tous âges, origines et intérêts, conformément à la règle d’accessibilité des 8 à 80 ans.

Avec un nouvel afflux de populations d’origines religieuses et culturelles diverses qui s’installent dans une ville prédominante chrétienne comme Perth, l’accès aux lieux de culte (mosquées, temples, synagogues et autres) permet à ces communautés de préserver leurs pratiques culturelles et religieuses dans ce nouvel environnement.

Festivals / Festivals

Expansion of Perth's festival strip to enhance the city's vibrant event culture. Includes multi-seasonal functionality, street closure for vehicle traffic, an open field for diverse activities, tents with vendors, children able to play in the park and stage between events, and connection to retail spaces.

Agrandissement de la zone des festivals de Perth pour renforcer la culture événementielle dynamique de la ville. Comprend une fonctionnalité multi-saisonnnière, la fermeture des rues pour la circulation des véhicules, un champ ouvert pour diverses activités, des tentes avec des vendeurs, des enfants capables de jouer dans le parc et sur scène entre les événements et une connexion aux espaces de vente au détail.



Citizen Wants / Relations Communauté

Residents, business owners, and staff, take great interest in development and are greatly concerned about a variety of issues, but not limited to:

- Heritage
- Small-town atmosphere
- Promotion of Local Events
- Environmental Protection + Climate Change
- Ensuring Capacity of All Infrastructure + Programming Improving Industrial Parks and their Surroundings
- Job Opportunities for Diverse Skill Sets
- Affordable Housing

Les résidents, les propriétaires d’entreprises et le personnel s’intéressent beaucoup au développement et sont préoccupés par une variété d’éléments, notamment :

- Patrimoine
- Ambiance de petite ville
- Promotion d’événements locaux
- Protection de l’environnement + changement climatique
- Assurer la capacité de toutes les infrastructures + programmation améliorant les parcs industriels et leurs environs
- Possibilités d’emploi pour divers ensembles de compétences
- Logement abordable



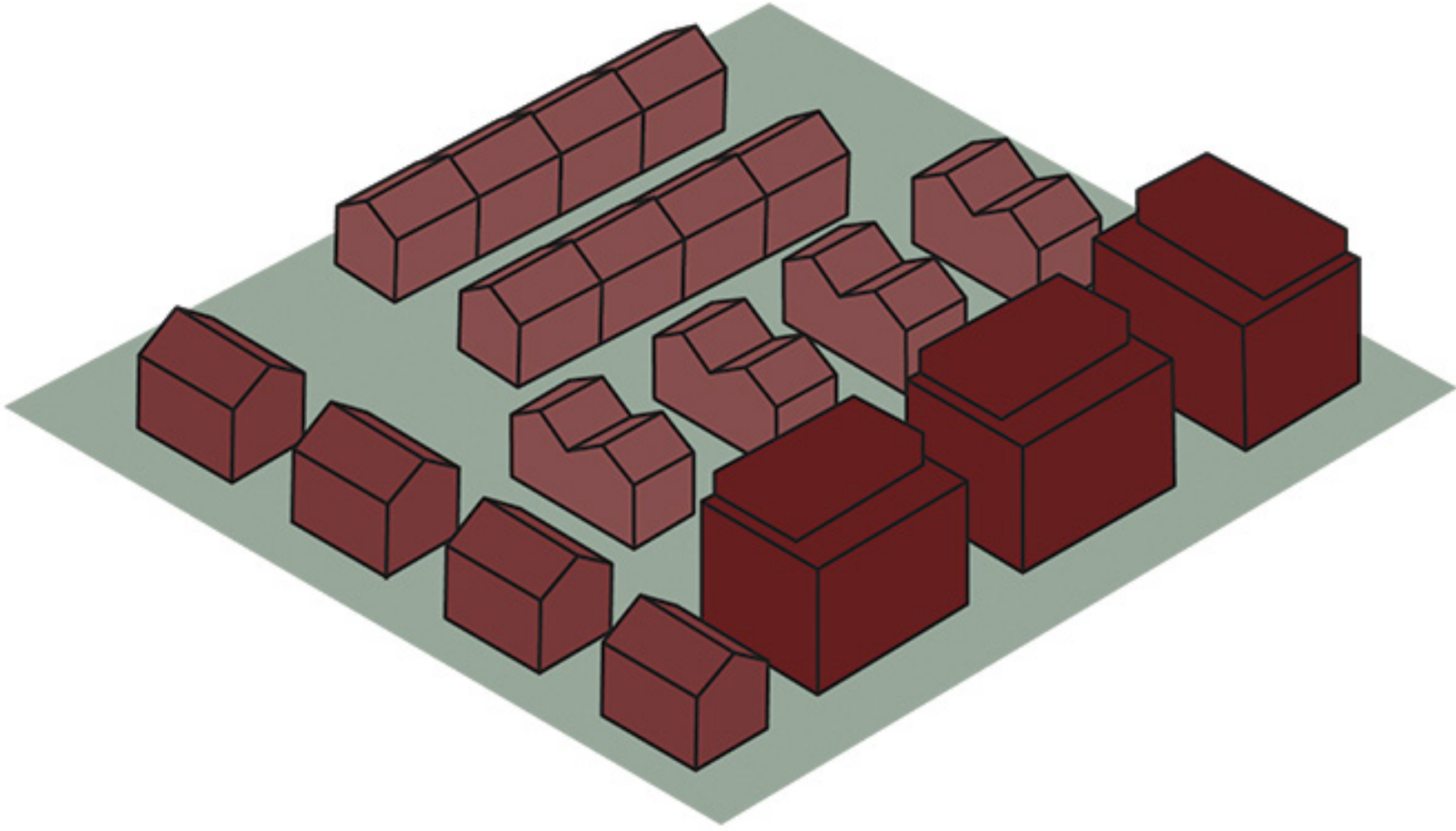
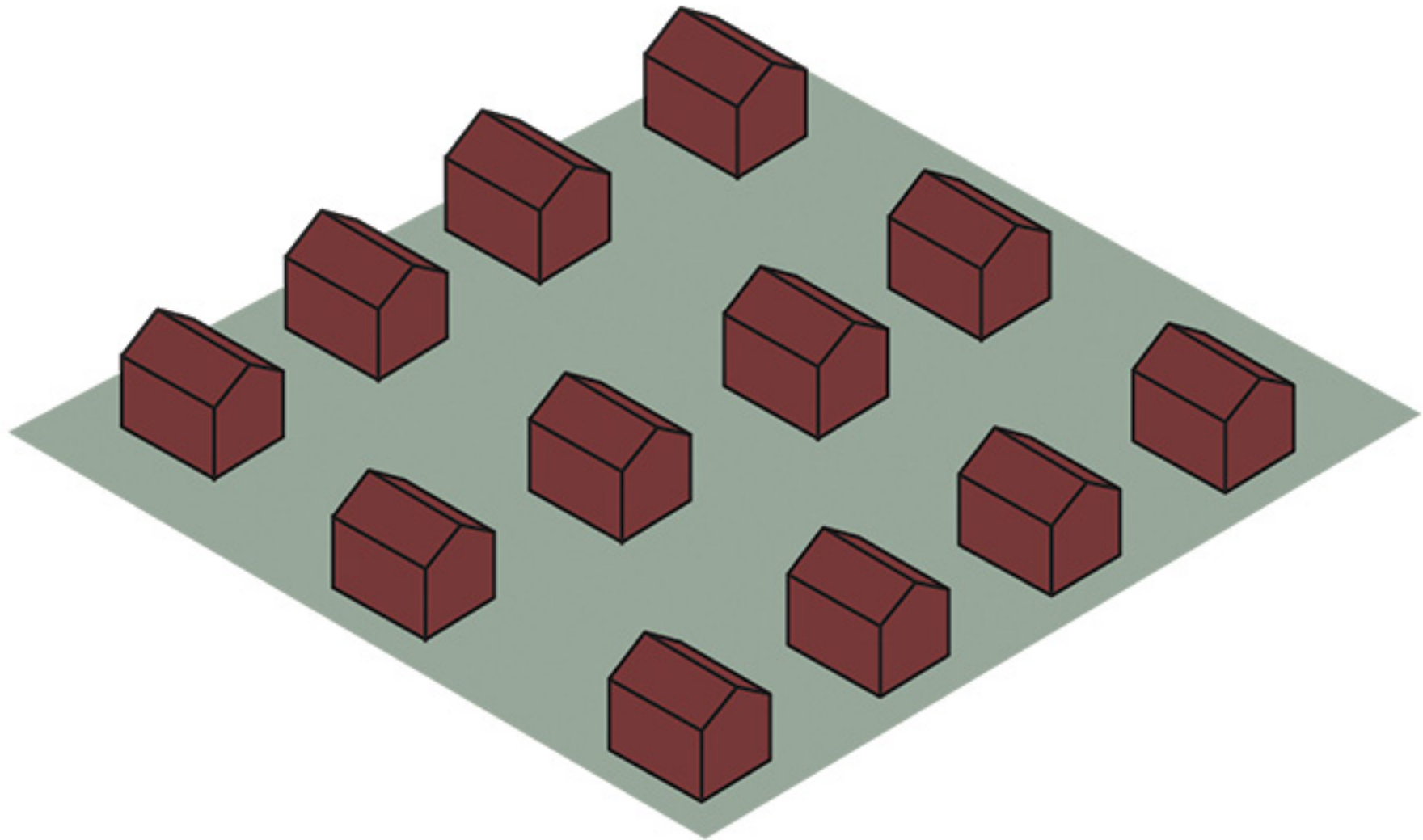
Intensification/ Imagination/ Visualization

Densification / Densification

Intensification/ Imagination/ Visualisation

This site arrangement demonstrates key building blocks for development, achieving over 39 units per block, as outlined in Caivan’s plan. Through compact low-rise buildings, townhouses, and apartment complexes, we maximize space while maintaining livability.

Cette disposition du site démontre les éléments clés du développement, réalisant plus de 39 unités par bloc, comme indiqué dans le plan de Caivan. Grâce à des immeubles compacts de faible hauteur, des maisons de ville et des complexes d’appartements, nous maximisons l’espace tout en préservant l’habitabilité.



Example of typical block the new development from Caivan is proposing in Perth taken from decaria street with a current unit per hectare of 39.

New improved high density blocks to reach a target goal up to 200 units per hectare.

Exemple de bloc typique que le nouveau développement de Caivan propose à Perth, prise de la rue Decaria, avec une densité de 39 unité par hectare.

Nouveaux blocs améliorés à haute densité pour atteindre un objectif qui pourrait atteindre 200 unités par hectare.

Visualization / Visualisation

Effective visualization plays a crucial role in understanding the diverse architectural elements and spatial configurations of housing.

Une visualisation efficace joue un rôle critique dans la compréhension des divers éléments architecturaux et à la configuration spatiale et répartition des logements.



Inclusion of diverse age groups focusing on the principle of 8-80.

Inclusion de divers groupes d'âge en se concentrant sur le principe de 8-80.



Variety of activities and lifestyles catering to active and leisure focused individuals.

Variété d'activités et de modes de vie destinés aux personnes qui sont actives et axées sur les loisirs.



Elements of seasonality showing elements from each season.

Éléments de saisonnalité montrant des éléments pour chaque saison.

Intensification/ Imagination/ Visualization

Introduction of multi unit housing allows for an increase in density for the growing population of Perth.

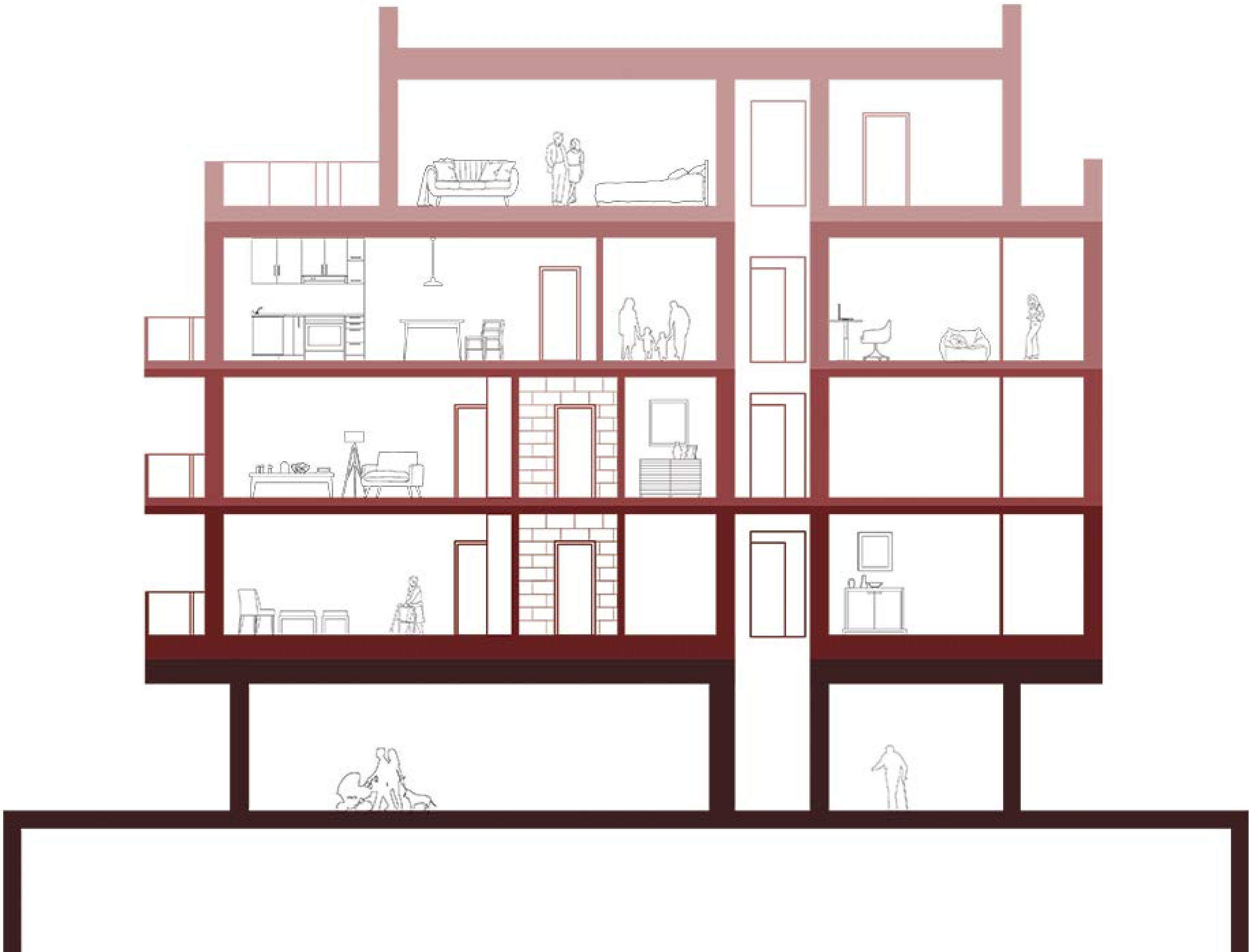
- Student Housing with dedicated student accommodation.
- Family Housing with room for expansion and terraces in family style homes.
- Senior living with easy accessibility and fosters community.
- Communal Space with shared activities and small businesses on the ground floor.

L'introduction de logements collectifs permet d'augmenter la densité de la population croissante de Perth.

- Logement étudiant incluant des accommodements dédiés aux étudiants.
- Logement familial avec possibilité d'agrandissement et terrasses pour maisons de style familial.
- Résidence pour personnes âgées avec un accès facile et favorise la communauté.
- Espace commun avec activités partagées et petits commerces au rez-de-chaussée.

Intensification / Intensification

Intensification/ Imagination/ Visualisation



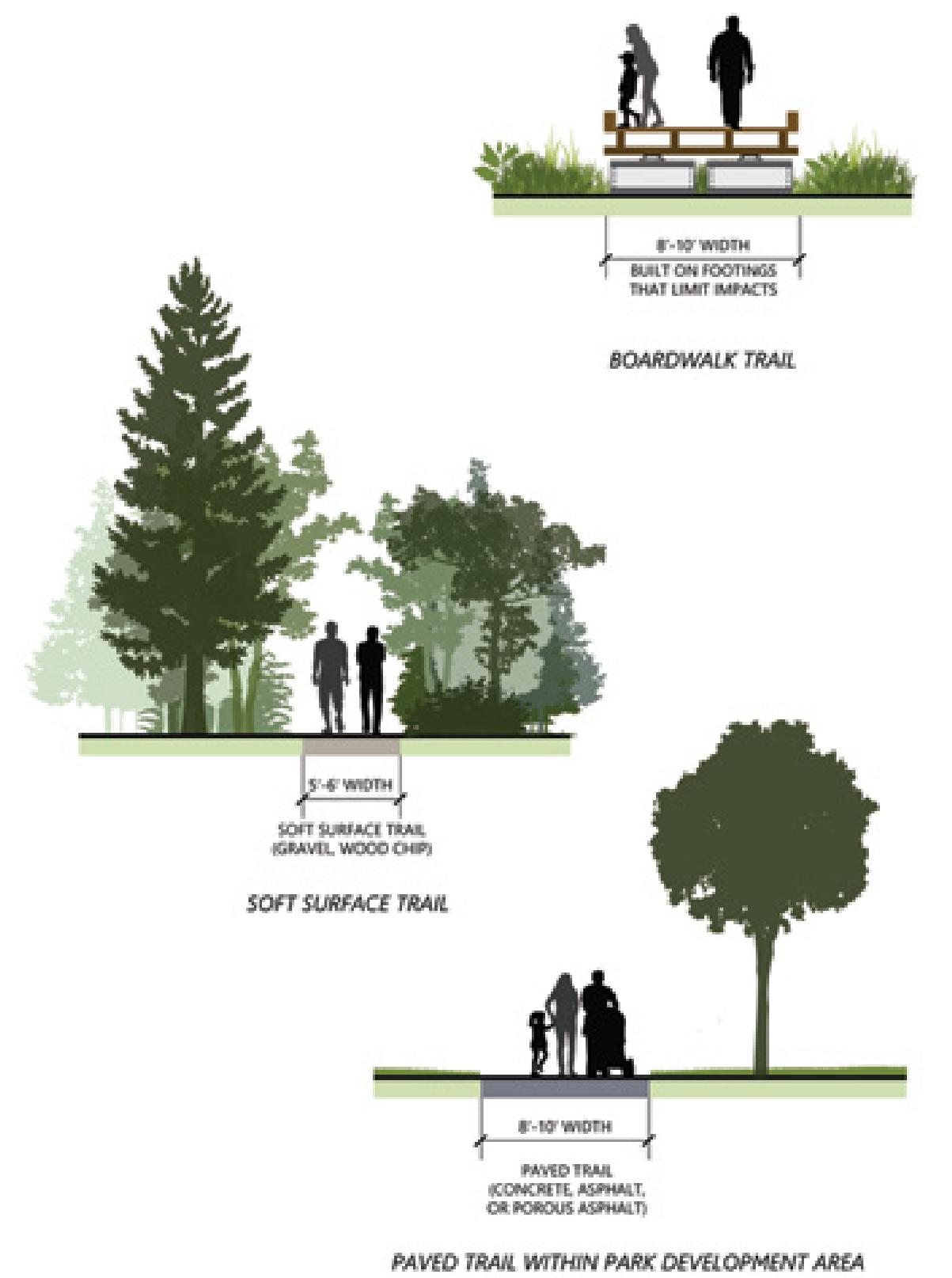
Path & Trails / Sentiers Nature

Following the guidelines of a healthy community, providing trails and other pedestrian infrastructure. Developing at the human scale, ensuring that all streets provide safe and continuous pedestrian access, through connected trails and sidewalks.

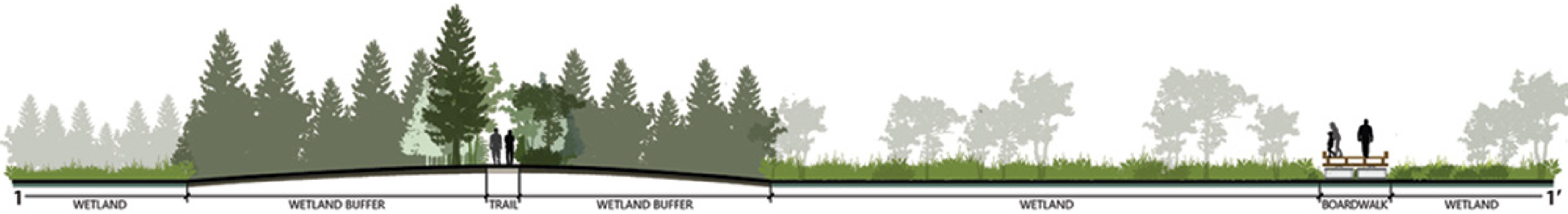
Suivre les lignes directrices d'une communauté saine, en fournissant des sentiers et autres infrastructures piétonnières. Développer à l'échelle humaine, garantir que toutes les rues offrent un accès piétonnier sûr et continu, grâce à des sentiers et des trottoirs connectés..

Providing trails throughout the wetland allows the site to make connections to its surroundings. Elevated trails or boardwalks allow for a natural barrier to prevent flooding while allowing water and wildlife to flow through the site and unmaintained paths that make connections to existing walking trails along the Tay River.

L'aménagement de sentiers à travers la zone humide permet au site d'établir des liens avec son environnement. Des sentiers ou des promenades surélevés créent une barrière naturelle pour empêcher les inondations tout en permettant à l'eau et à la faune de circuler à travers le site, ainsi que des sentiers non entretenus qui relient les sentiers pédestres existants le long de la rivière Tay.



Northeast Renton Park - Master Plan



Case study & image source: Northeast Renton Park Master Plan, Renton, WA Parks & Recreation <https://yourvoice.rentonwa.gov/northeastrentonpark>

Point of Access and Egress / Point d'Accès et de Sortie

“...the proposed single access point, whether twinned or not, does not provide adequate vehicular access and the circulation of for firefighting or emergency vehicles and based on the proposal, at minimum a second access is required”
- Trevor Choffe, Director of Protective Services / Fire Chief

“... le point d'accès unique proposé, qu'il soit jumelé ou non, ne permet pas un accès adéquat aux véhicules ni à la circulation des véhicules d'incendie ou d'urgence et, sur la base de la proposition, au minimum un deuxième accès est requis”
- Trevor Choffe, directeur des services de protection/chef des pompiers



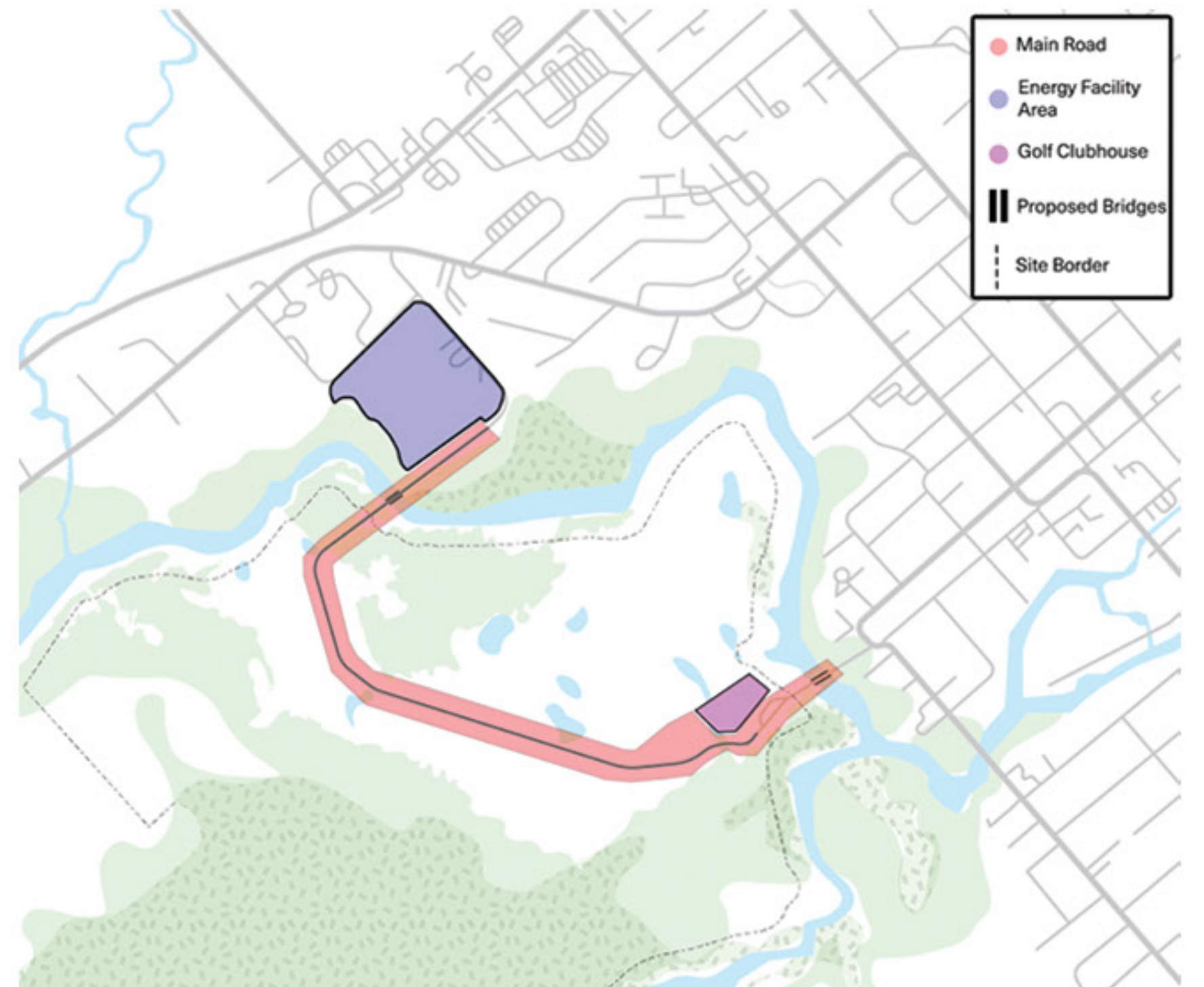
Currently there is only one point of access to the site, the Peter Street Bridge providing sole access to the Perth golf course.

Actuellement, seulement un point d'accès au site existe, le pont de la rue Peter offrant un accès unique au parcours de golf de Perth.



Proposed site for the second bridge, connecting off of Sunset Boulevard utilizing empty lots owned by the Lanark County administration.

Site proposé pour le deuxième pont, reliant Sunset Boulevard en utilisant des terrains vides appartenant à l'administration du comté de Lanark.

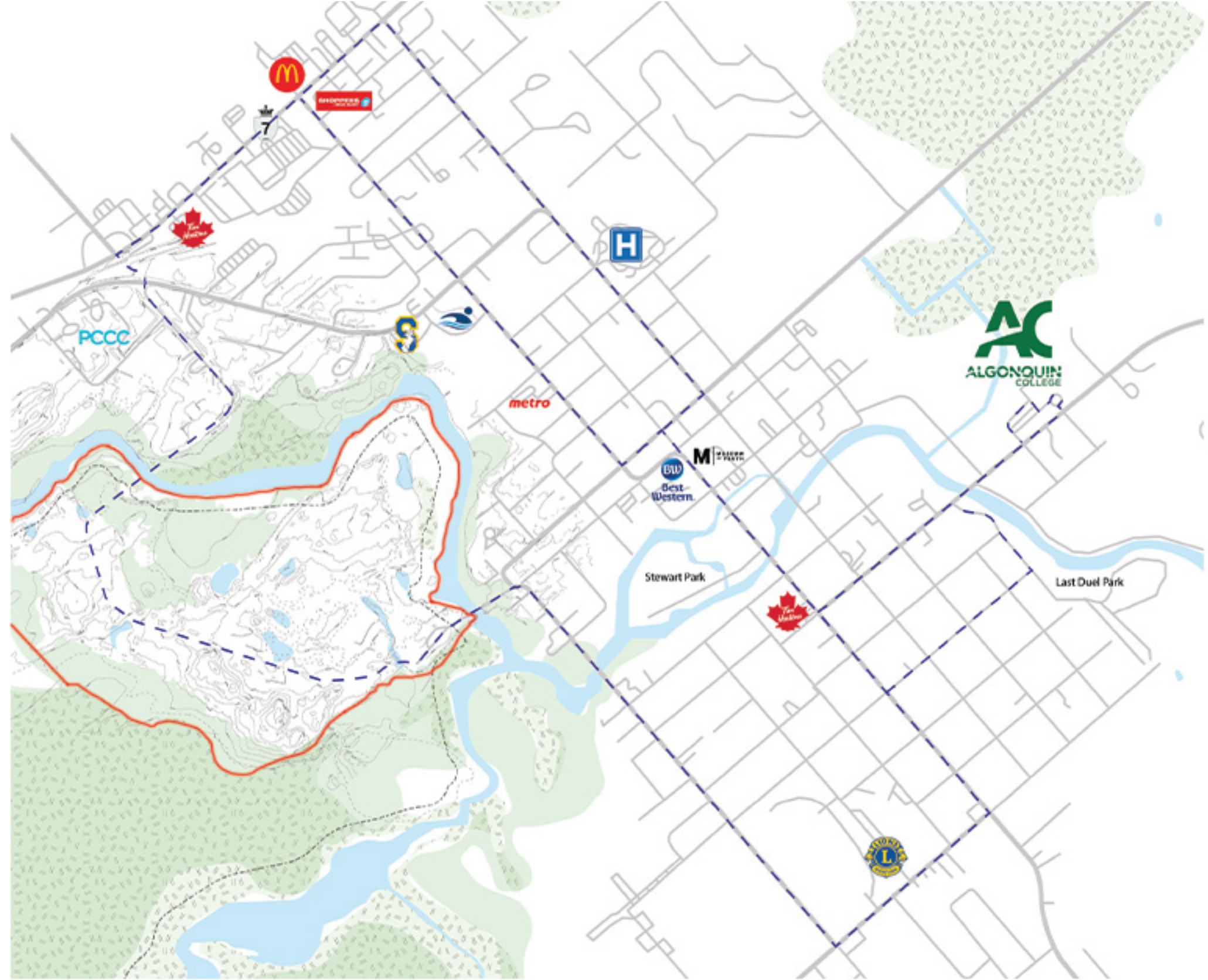
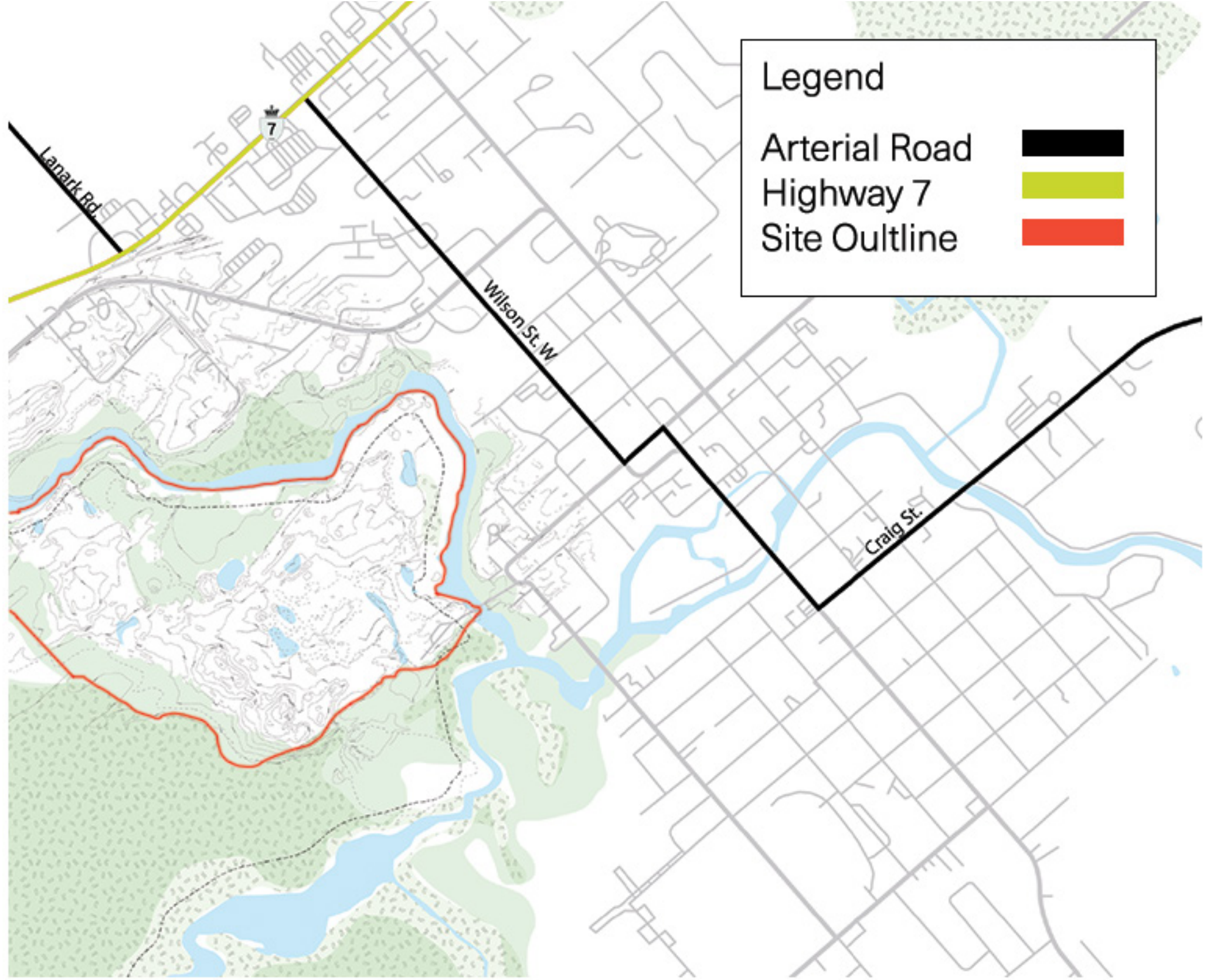


As a result, The construction of the new bridge, and a central road connecting the two points of access should be built before any other development can take place.

En conséquence, la construction du nouveau pont et d'une route centrale reliant les deux points d'accès devraient être construites avant que tout autre développement puisse avoir lieu.

“The TMP identified right-of-way requirements, preferred intersection control types and lane configurations, an extension of planned Bus Rapid Transit (BRT) service, and the size and location of a future Park and Ride lot.”
- Jennifer Luong P. Eng.

“Le TMP a identifié les exigences en matière de droit de passage, les types idéaux de contrôle d’intersection et les configurations, une extension du service de transport en commun rapide par bus (BRT) prévu, ainsi que la taille et l’emplacement d’un futur parc-o-bus.”
- Jennifer Luong, ing.



The Western Annex Lands currently has no streets connecting to the rest of Perth. It is in close proximity to Highway 7 and Wilson Street, which are the two main roadways going through the town.

Perth currently does not have a bus route, we propose a bus route that runs in a loop, offering circulation in both directions. It runs through many important services including the Western Annex Lands, Algonquin College, the hospital, downtown, and the main shopping plazas.

Les terres du Western Annex n’ont actuellement aucune rue reliant au reste de Perth. Il se trouve à proximité de l’autoroute 7 et de la rue Wilson, qui sont les deux principales artères traversant la ville.

Perth ne dispose actuellement pas de ligne de bus, nous proposons une ligne qui circule en boucle, offrant une circulation bidirectionnelle qui traverse de nombreux services importants, notamment les terrains du Western Annex, le collège Algonquin, l’hôpital, le centre-ville et les principales places commerciales.

PLANNING FOR PERTH - Fall 2024
Student Work // individual design projects

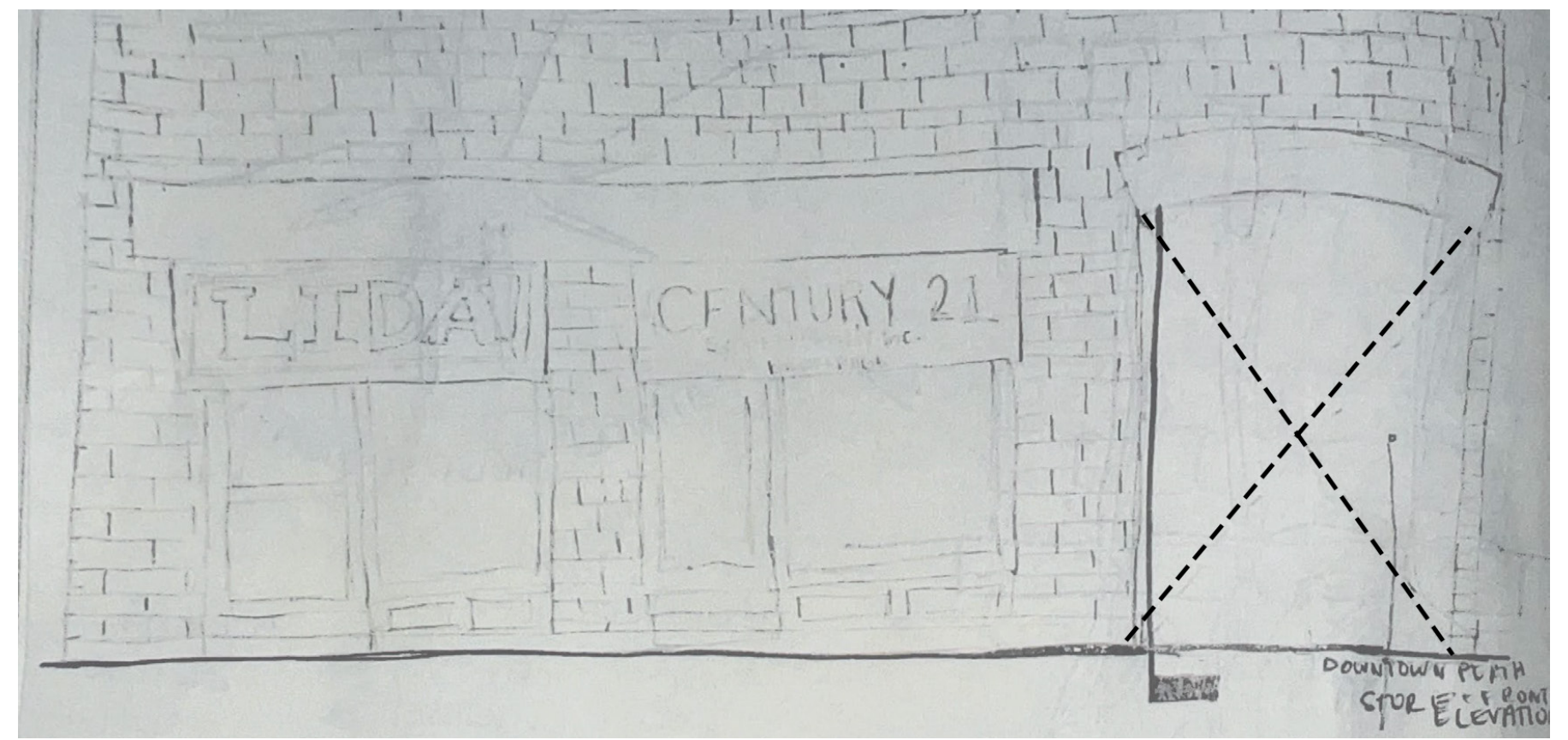


ARCS3304 - Urbanism on the Periphery
3rd-year Undergraduate Studio
Instructor // Assoc. Prof. Catherine Bonier

JULIANNA AVRAMIDIS
Annex Grove

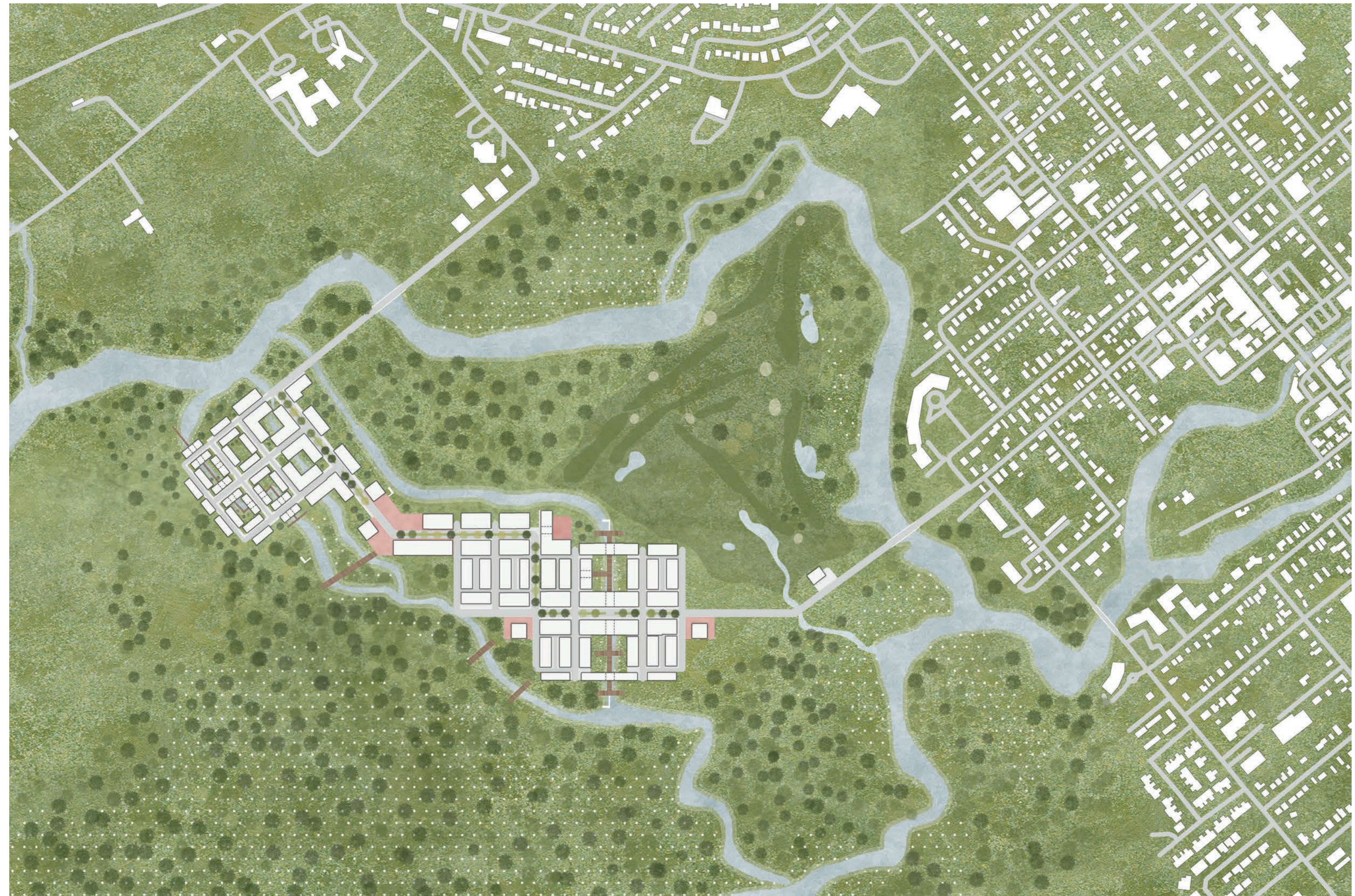


“Reanimating vestigial pathways into meaningful spaces that unite social and environmental infrastructure”



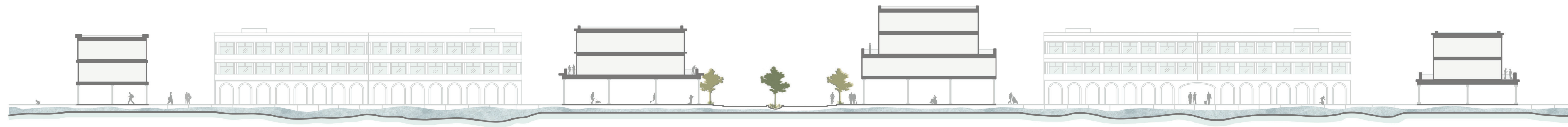
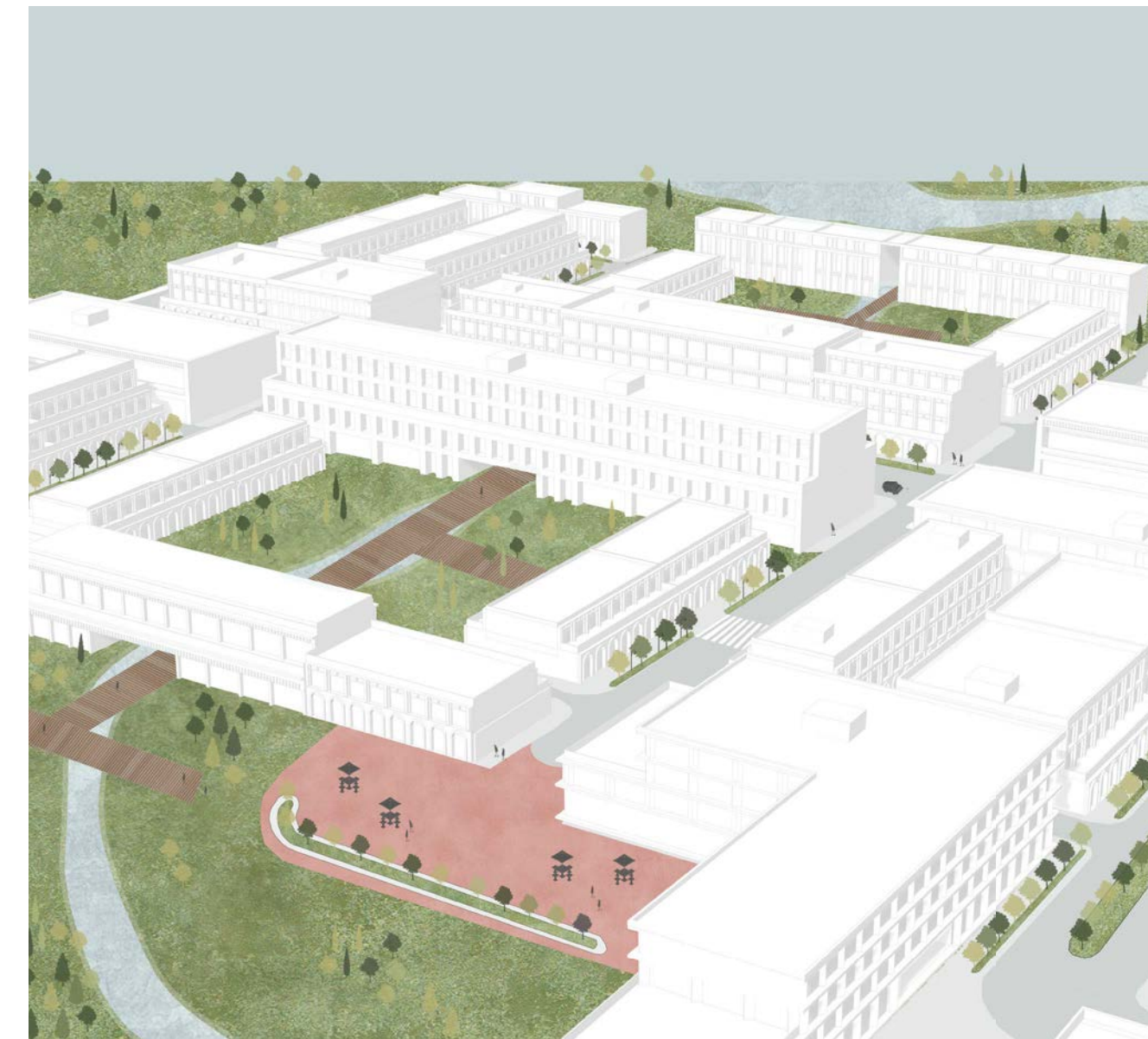
Developed Areas:
 Total Hectares Developed =39.9
 Number of Housing Units = 1150
 Number of Units / Hectare =28

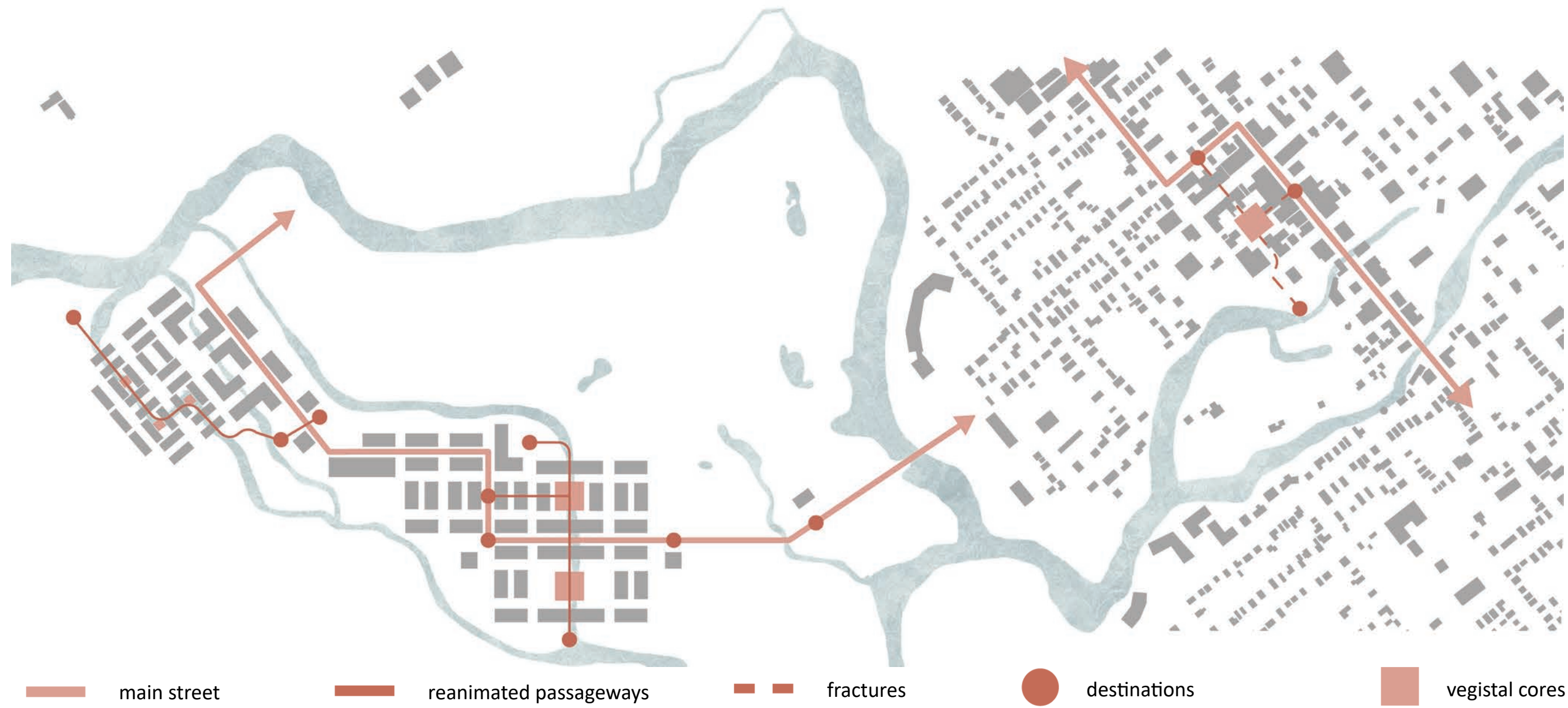
Undeveloped Areas:
 Hectare Municipal Parks = 4.9
 Hectares Wooded Area = 19.1
 Hectares Water Management Area = 11.2



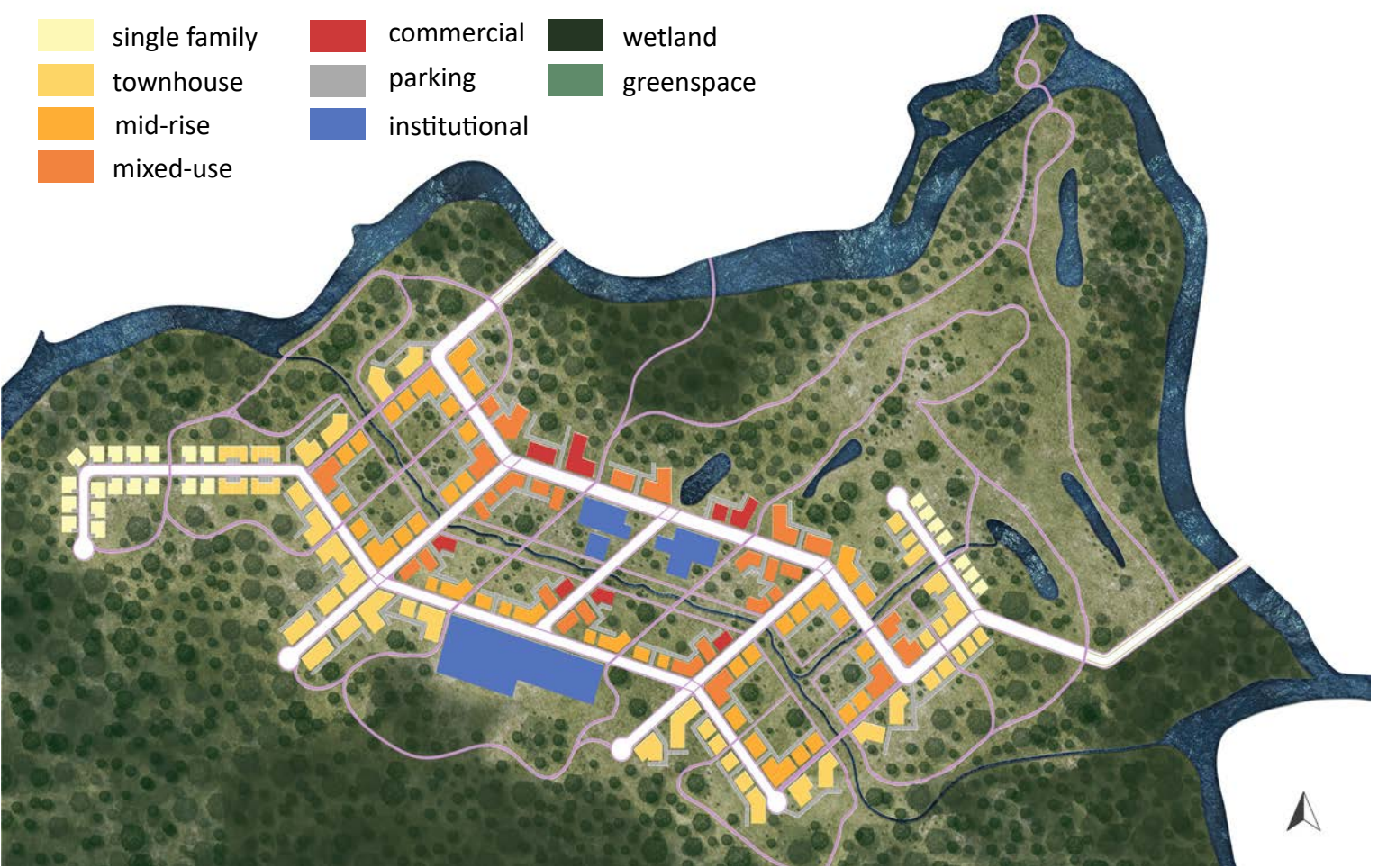
Annex Grove began with a close study of Perth’s historic town centre, especially the porte-cochère, the carriage pass-throughs that are traces of the horse-drawn era. Julianna Avramidis maintained a significant portion of the golf course, wetlands, and forest, arranging multiple housing types around courtyards, joined by modern passageways for bioswales and connected pedestrian pathways.

Annex Grove a commencé par une étude approfondie du centre-ville historique de Perth, en particulier de la porte-cochère, ces passages pour calèches qui sont des traces de l’époque des chevaux. Julianna Avramidis a entretenu une partie importante du terrain de golf, des zones humides et de la forêt, en aménageant plusieurs types de logements autour des cours centrale, reliés par des passages modernes pour les rigoles biologiques et des sentiers piétonniers connectés.





CELIA BOYD
Creek's Crossing



“Transforming public spaces into hubs for connection, education, and recreation”



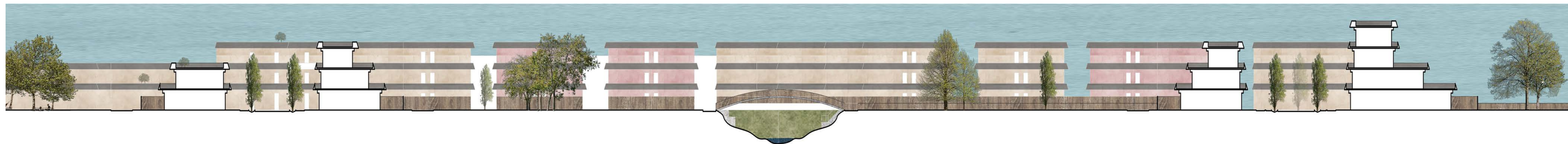
Developed Areas:
 Total Hectares Developed = 50
 Number of Housing Units = 800
 Number of Units / Hectare = 16

Undeveloped Areas:
 Hectare Municipal Parks = 10
 Hectares Wooded Area = 30
 Hectares Water Management Area = 34.3

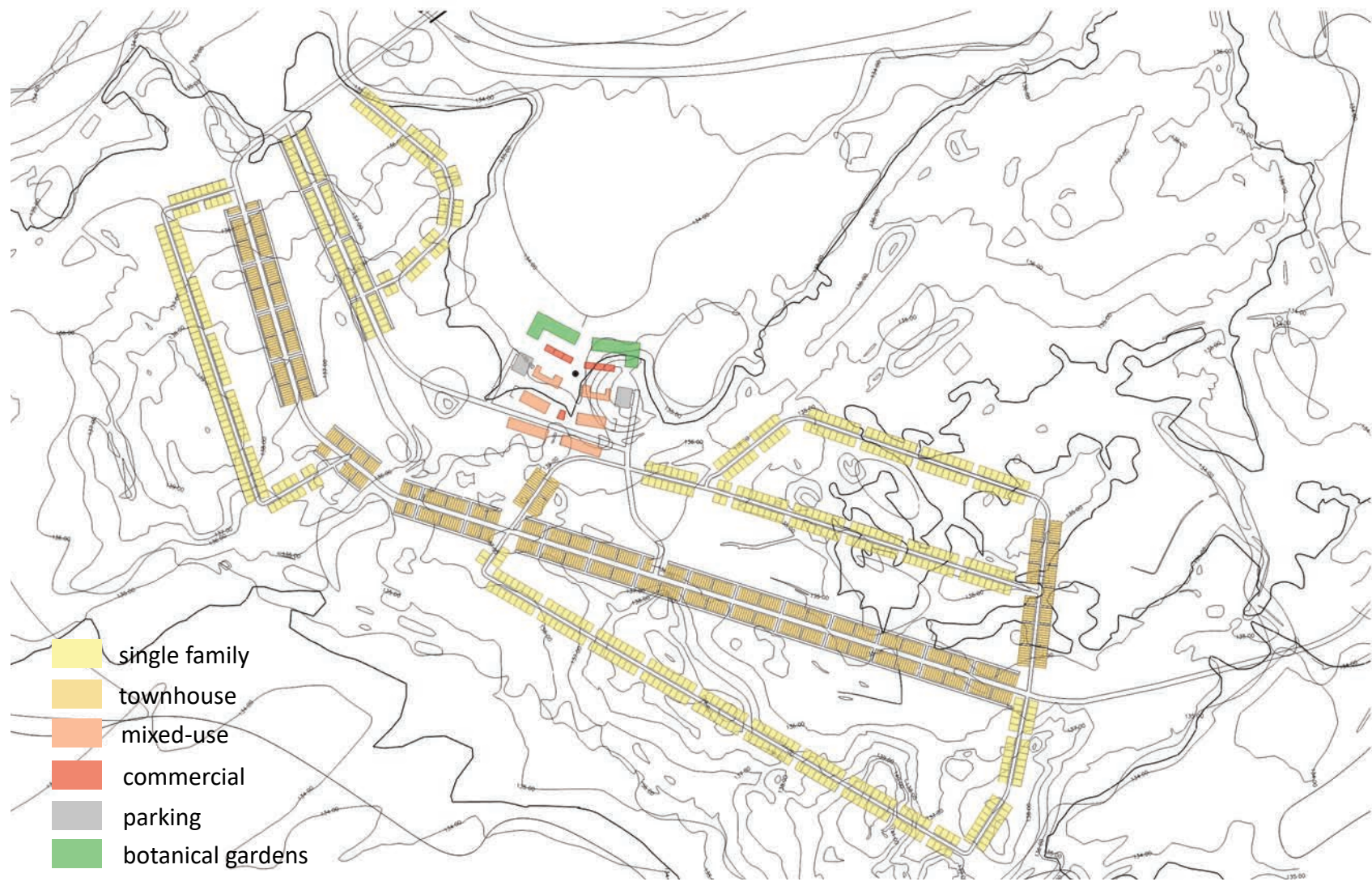


Celia Boyd's design for **Creek's Crossing** was inspired by Amsterdam, aligning four-storey housing blocks adjacent to boulevards and canals. Her design evolved into a series of stepped buildings surrounding civic and recreational spaces and integrated storm water management. The project preserves a large area towards Grant's Creek for a new regional hospital complex.

La conception de Celia Boyd pour **Creek's Crossing** s'est inspirée des rues de la ville d'Amsterdam, alignant des immeubles d'habitation de quatre étages adjacents aux boulevards et aux canaux. Sa conception a évolué vers une série de bâtiments faite de terrasse en gradin entourant des espaces civiques et récréatifs avec une gestion intégrée des eaux de pluie. Le projet préserve une vaste zone en direction de Grant's Creek pour un nouveau complexe hospitalier régional.



CALLUM BROWNING
The Plaza Wetlands



“Designing pathways that connect people to nature and promote active lifestyles year-round”



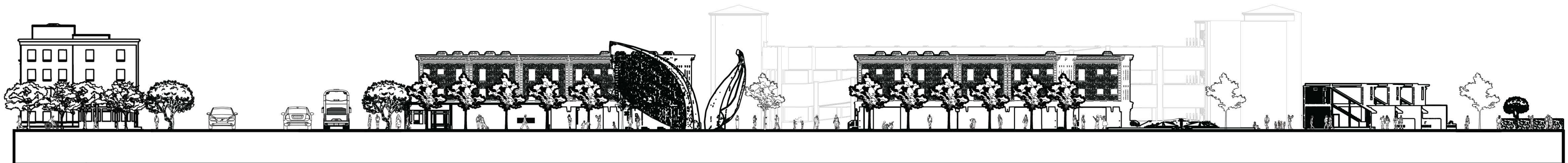
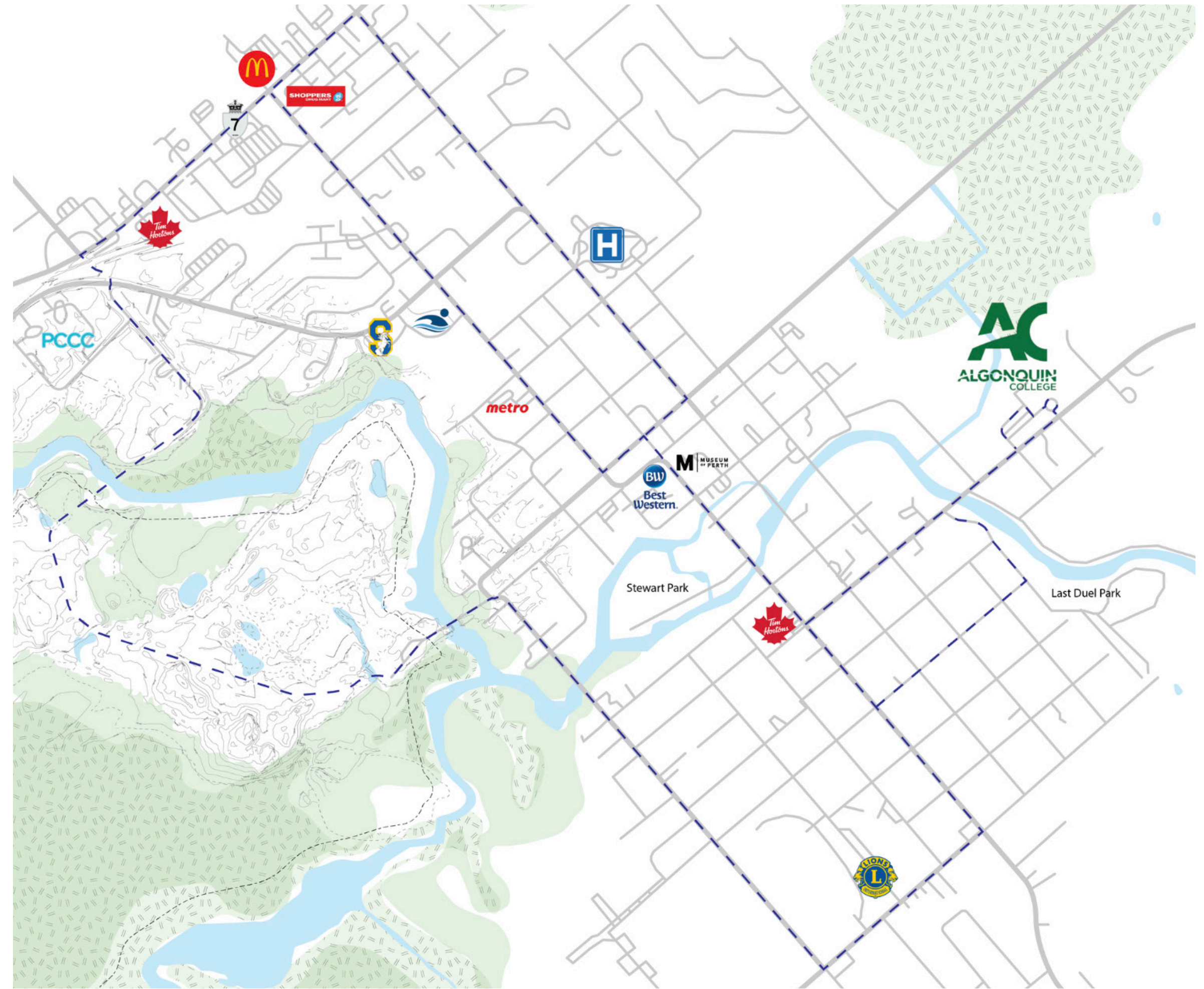
Developed Areas:
 Total Hectares Developed = 45.6
 Number of Housing Units = 1,455
 Number of Units / Hectare = 31.9

Undeveloped Areas:
 Hectare Municipal Parks = 11
 Hectares Wooded Area = 28.47
 Hectares Water Management Area = 4.56



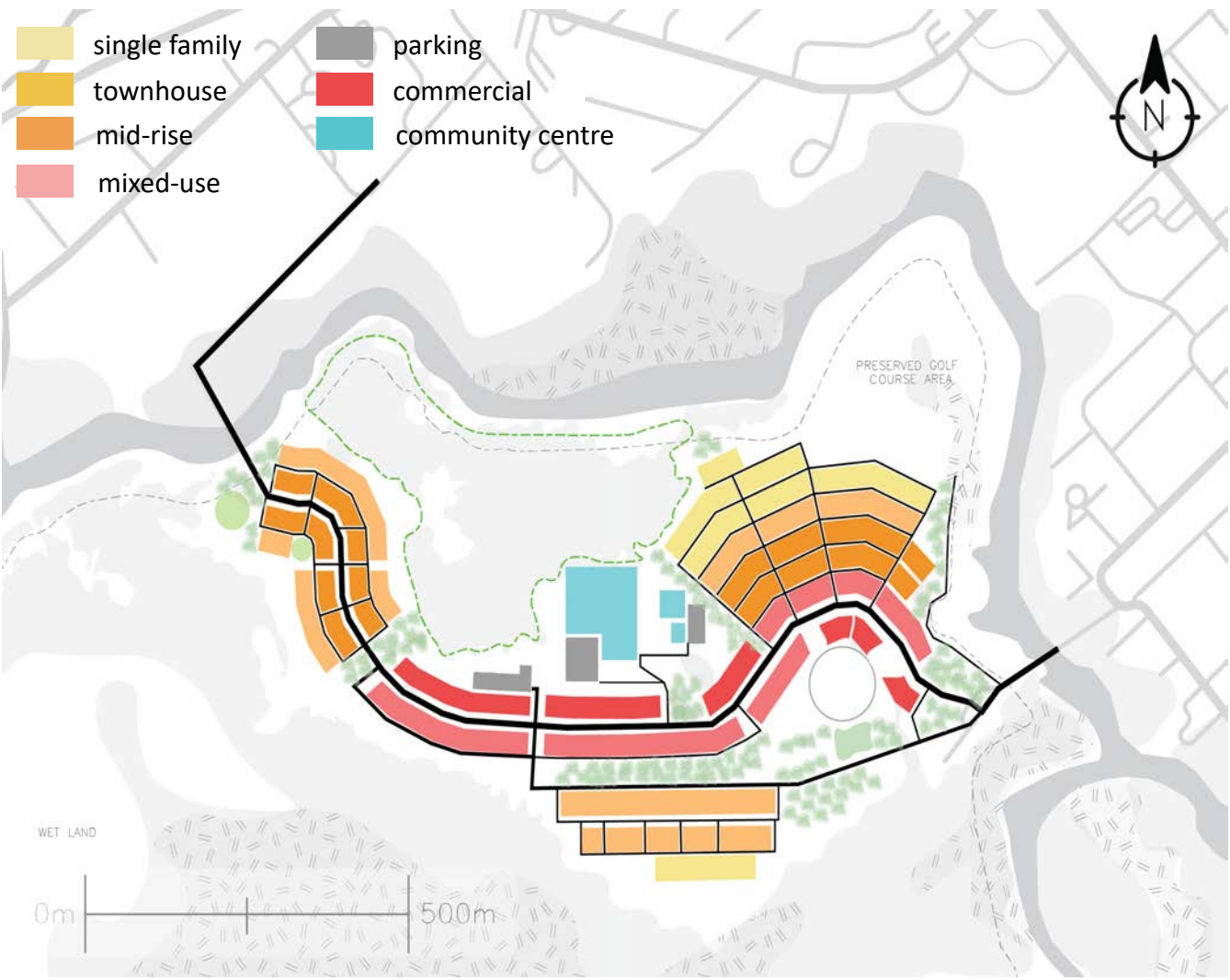
Callum Browning began his design for the **Plaza Wetlands** with a vision of a long boardwalk terminating in a wood gazebo. The centre of his small-scale residential development is housing above shops amidst a large public plaza that leads to the wetland promenade. Public art and outdoor dining and recreation become the heart of a historically designed new neighbourhood.

Callum Browning a commencé sa conception pour la **Plaza Wetlands** avec la vision d’une longue promenade se terminant par un belvédère fait de bois. Le centre de son développement résidentiel à petite échelle se situe au-dessus des magasins, au milieu d’une grande place publique qui mène à la promenade des zones humides. L’art public, les repas et les loisirs en plein air deviennent le cœur d’un nouveau quartier à allure historique.

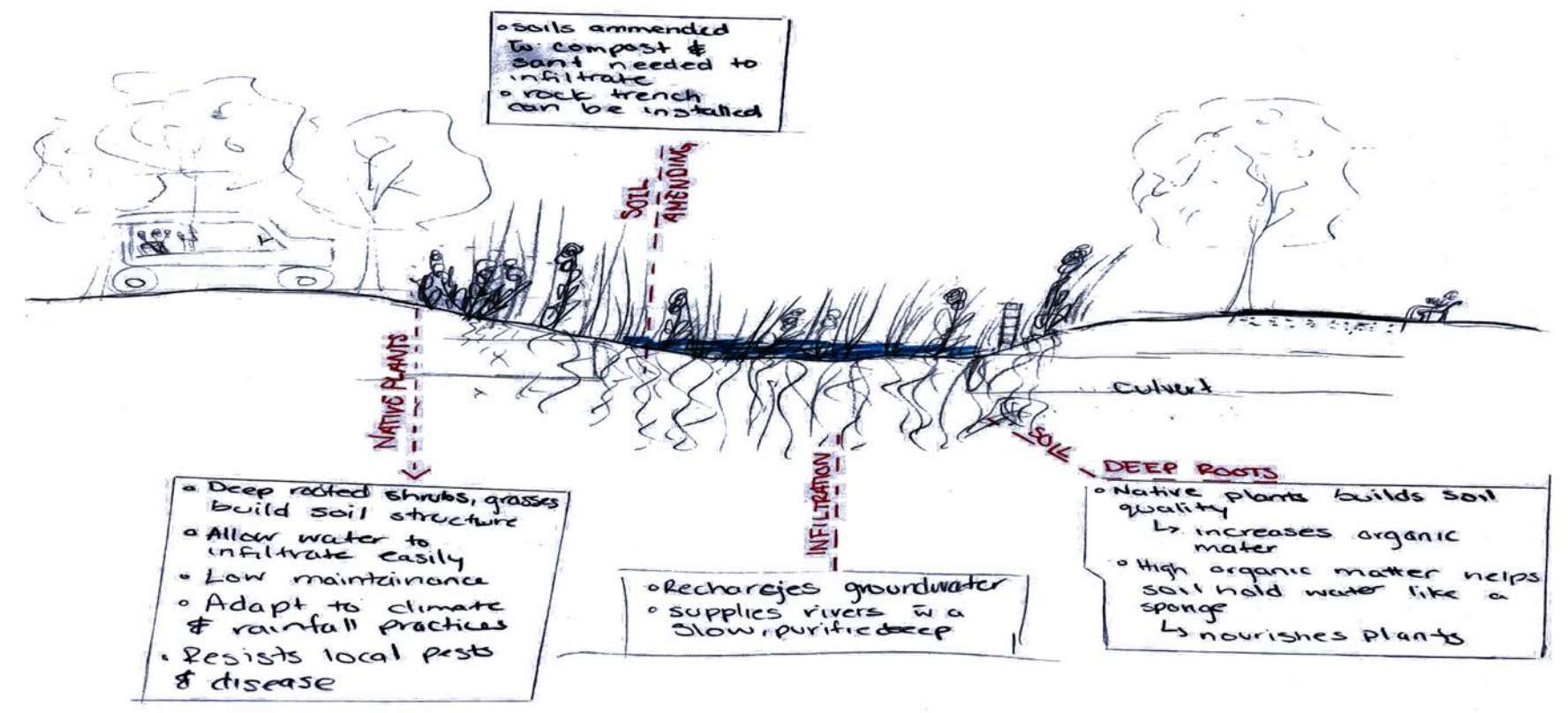


SARAH CLAVIJO-FRANCO

Perth's Blueprint



“Using bioswales and wetlands to enhance flood resilience and biodiversity”



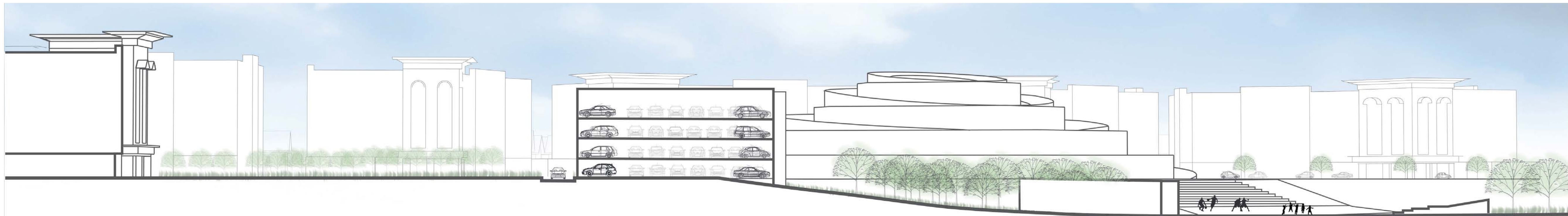
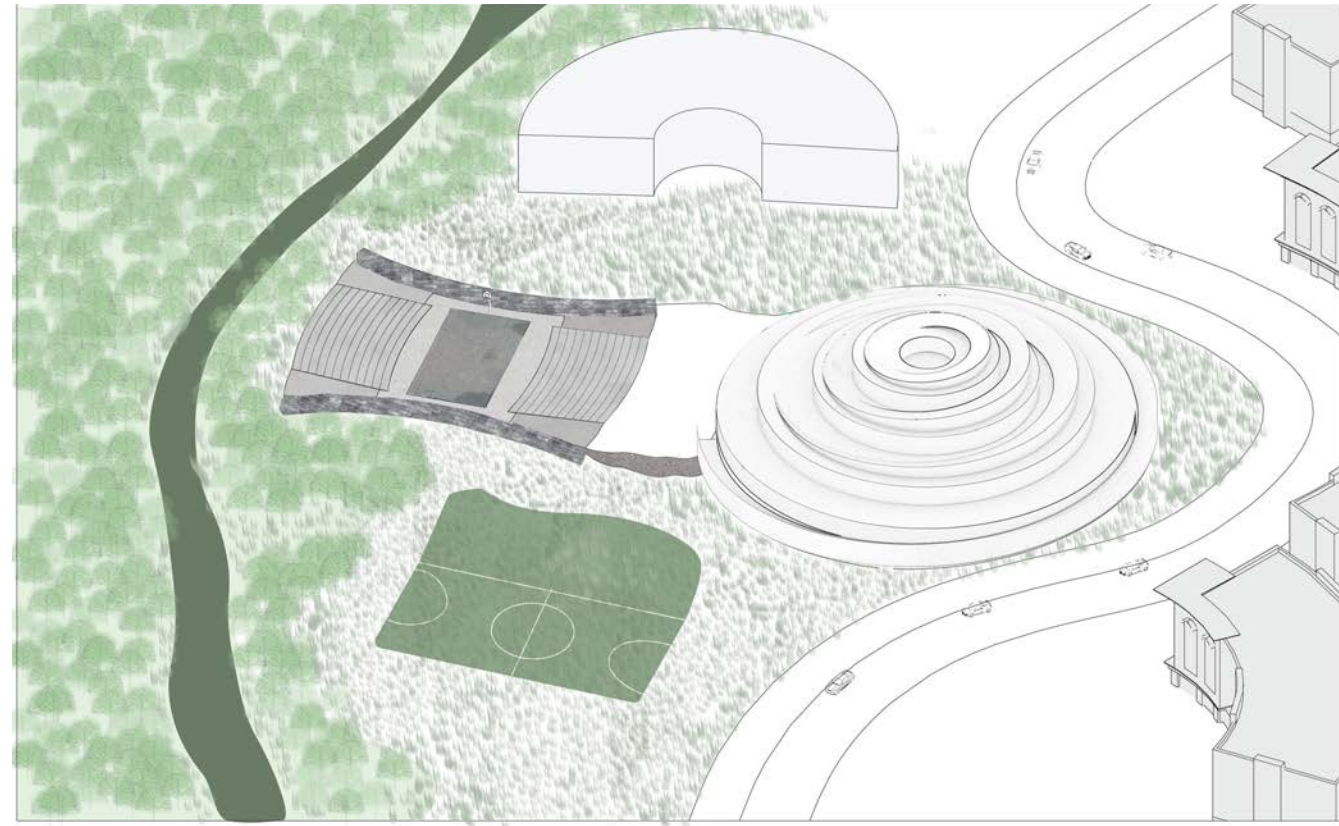
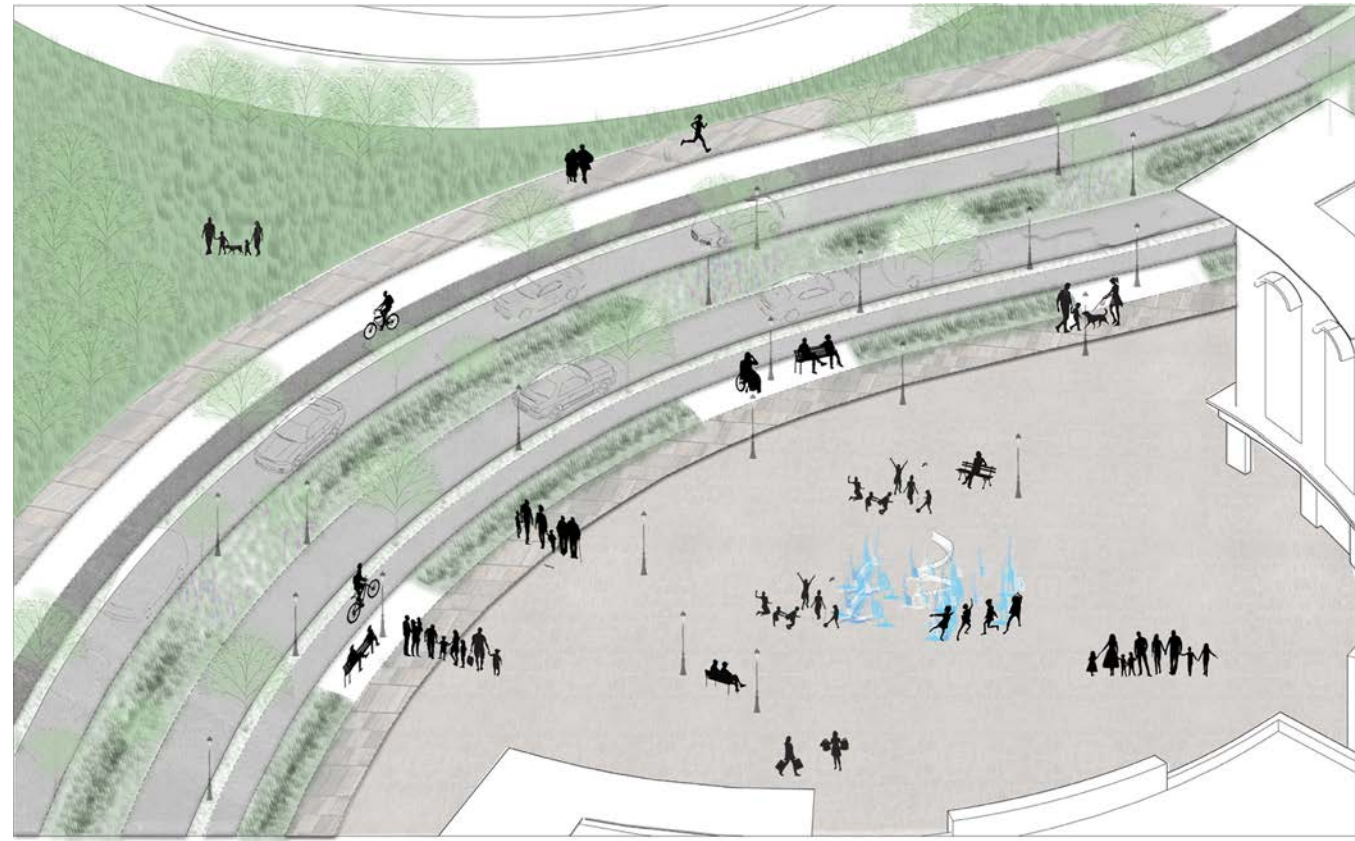
Developed Areas:
 Total Hectares Developed = 41.5
 Number of Housing Units = 954
 Number of Units / Hectare = 22

Undeveloped Areas:
 Hectare Municipal Parks = 4.11
 Hectares Wooded Area = 14.40
 Hectares Water Management Area = 3.24



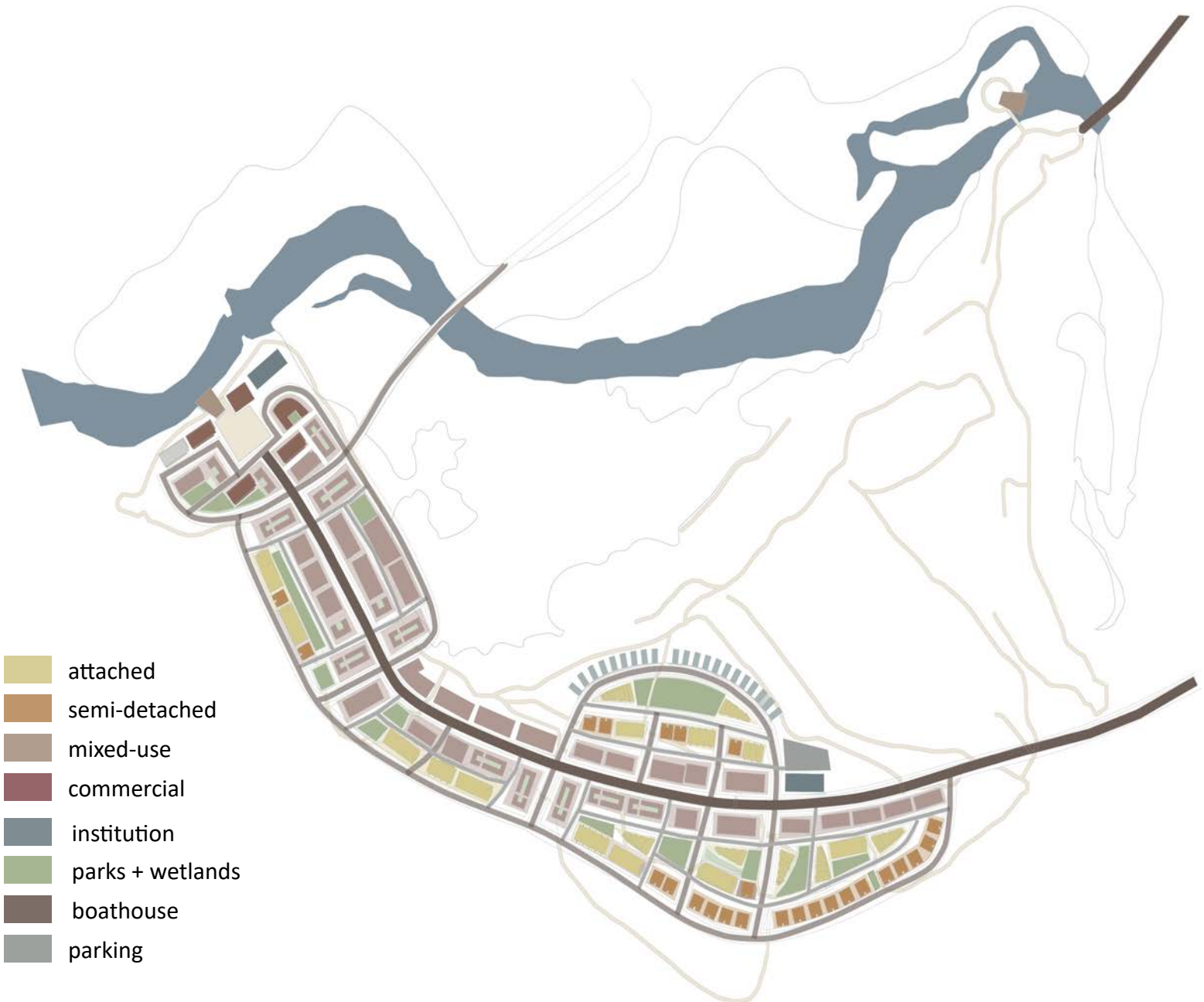
Sarah Clavijo-Franco chose to site her **Blueprint for Perth** development within the east side of the site, trying to preserve the land upriver from Perth's water supply intake area as forest and wetlands. She explored circular forms, proposing a new town hall adjacent to a sunken water square that would offer seasonally changing recreational opportunities while managing storm water.

Sarah Clavijo-Franco a choisi d'implanter **Blueprint for Perth** du côté est du site, essayant de préserver les terres aux alentours de la rivière où se trouve la zone d'approvisionnement d'eau de Perth sous forme de forêts et de zones humides. Elle a exploré les formes circulaires, proposant un nouvel hôtel de ville adjacent à une place d'eau qui offrirait des possibilités de loisirs changeantes de saison en saison tout en gérant les eaux pluviales.

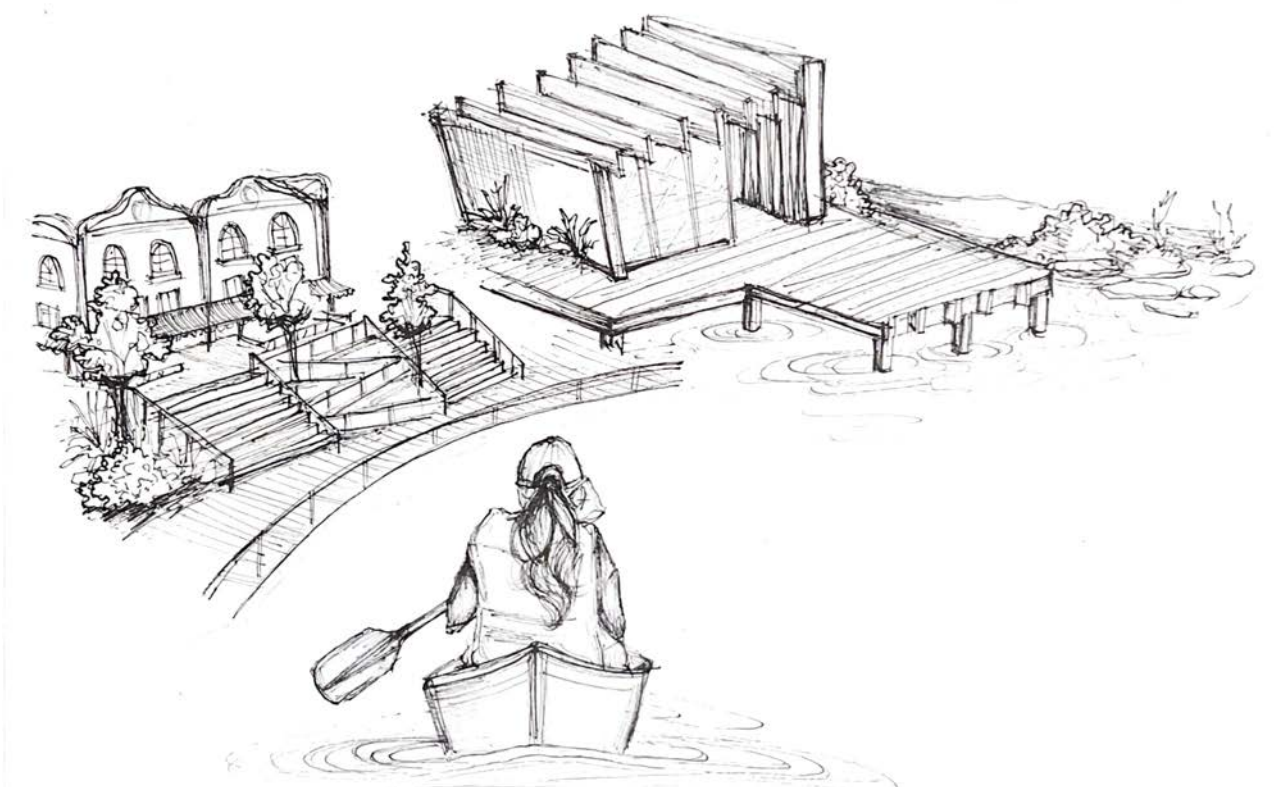


SHANNELLE DE CROOS

Riverfront Reimagined



“Integrating boathouses and pedestrian networks to enhance community interaction and accessibility”



Developed Areas:
 Total Hectares Developed = 21.41
 Number of Housing Units = 2040
 Number of Units / Hectare = 83

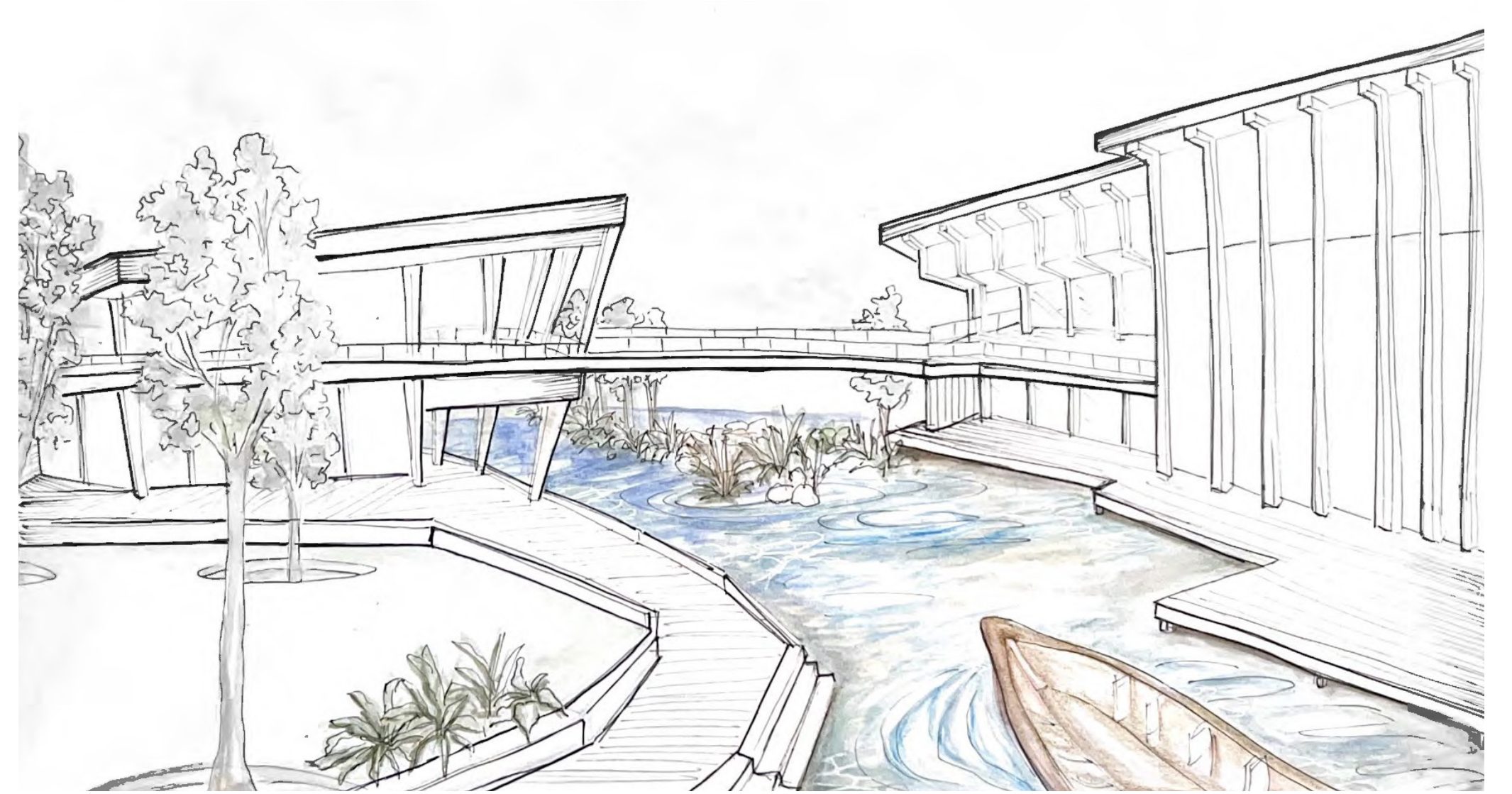
Undeveloped Areas:
 Hectares Municipal Parks = 0.71
 Hectares Wooded Area = 42.71
 Hectares Water Management Area = 22.36



Shannelle De Croos began her **Riverfront Reimagined** project with a study of kayaking and canoeing, and a review of boathouse case studies and kayak training and racing courses. She proposed a central plaza on the northwest corner of the site, linked to a new boathouse and boat race viewing platform. She also devised new town house forms that create pocket parks and shared recreational areas for residents.

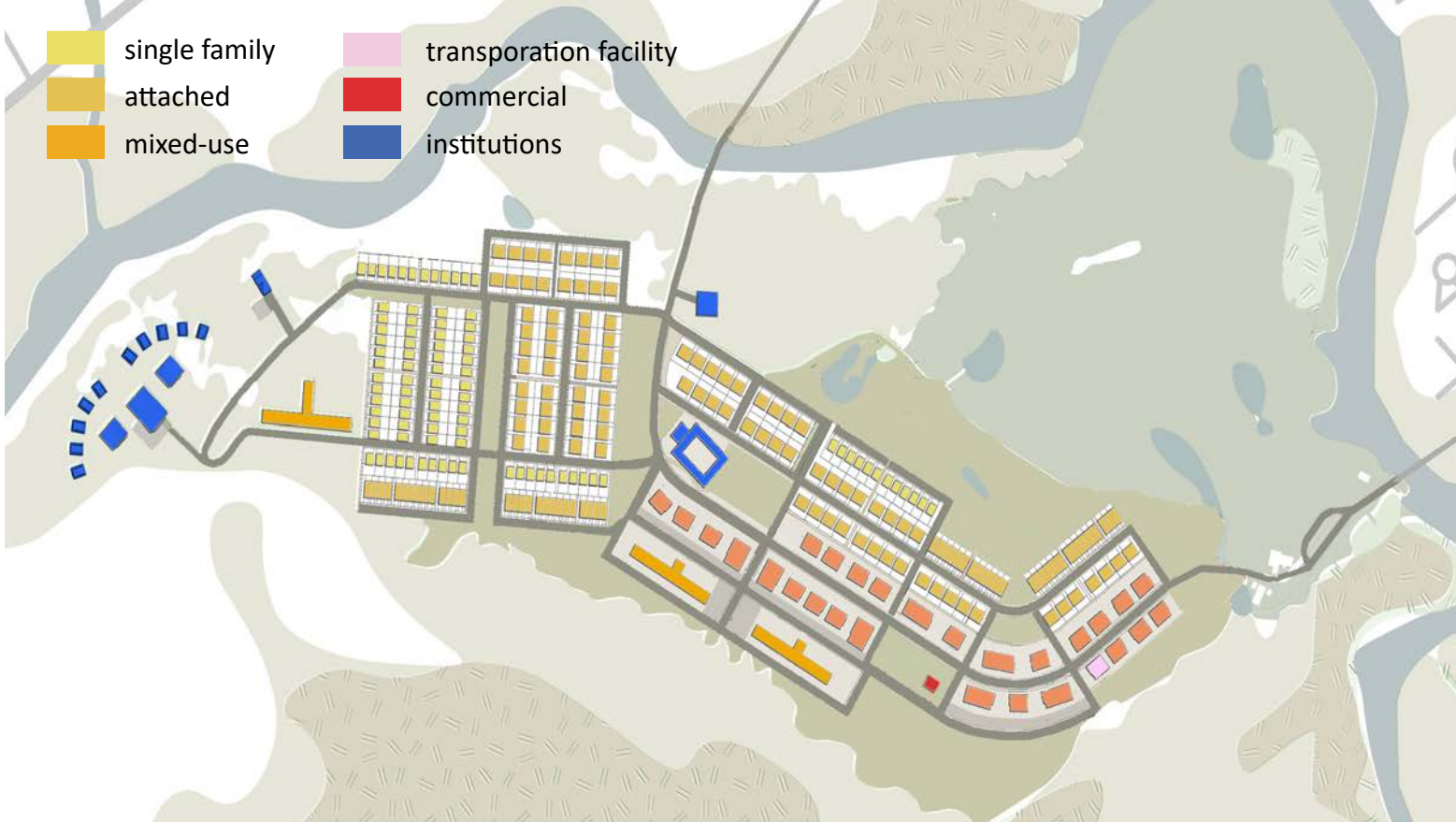
Shannelle De Croos a commencé son projet **Riverfront Reimagined** avec une étude du kayak et du canoë, ainsi qu’une étude sur les hangars à bateaux et des cours de formation pour course de kayak. Elle a proposé une place centrale au nord-ouest du site, reliée à un nouveau hangar à bateaux et à une plate-forme d’observation pour les courses de bateaux. Elle a également conçu de nouvelles formes de maisons de ville qui créent des parcs plus réservés et des zones de loisirs partagées pour les résidents.



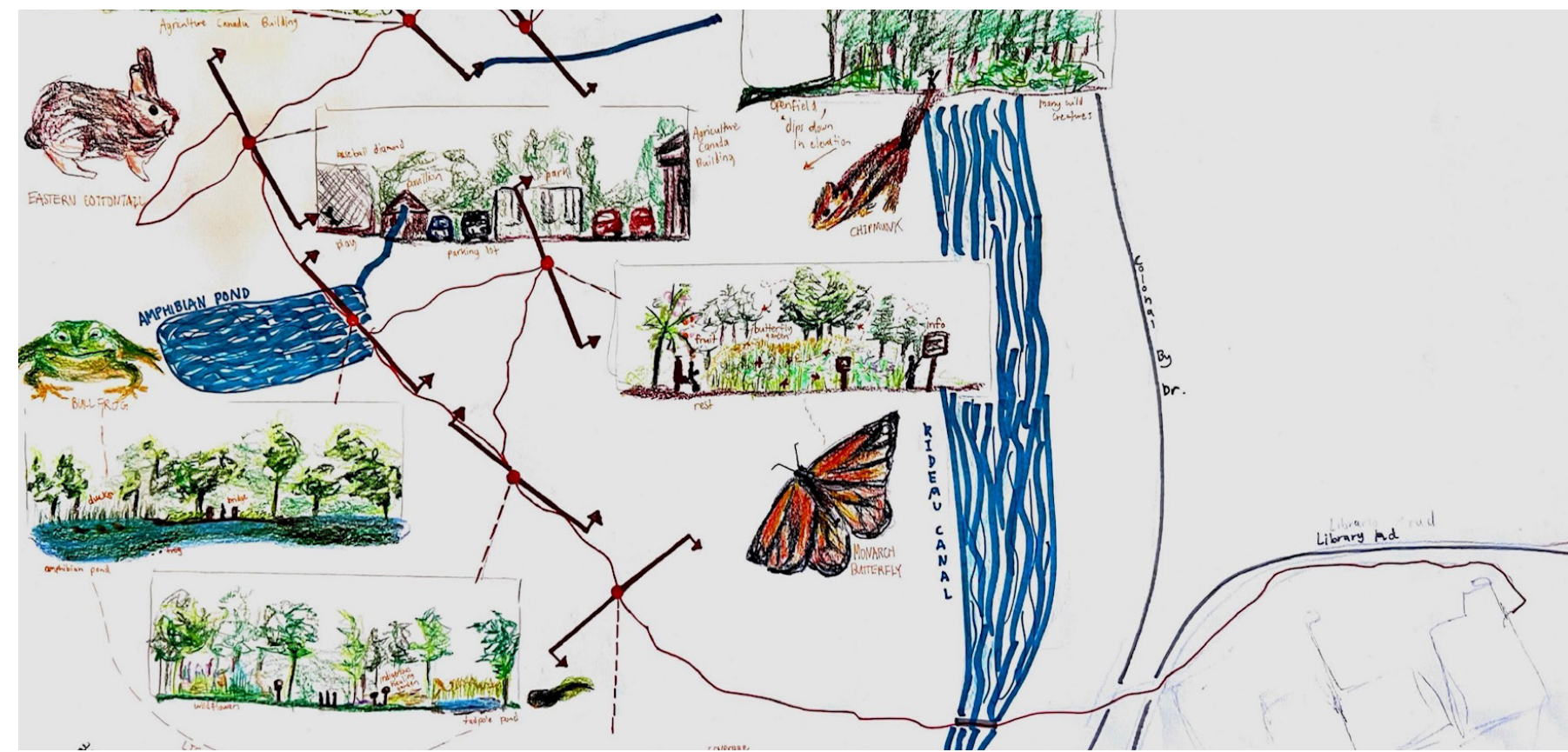


VICTORIA GUILÉ

Holistic Horizons



“Highlighting the Tay River as a central element for community interaction and retreat”



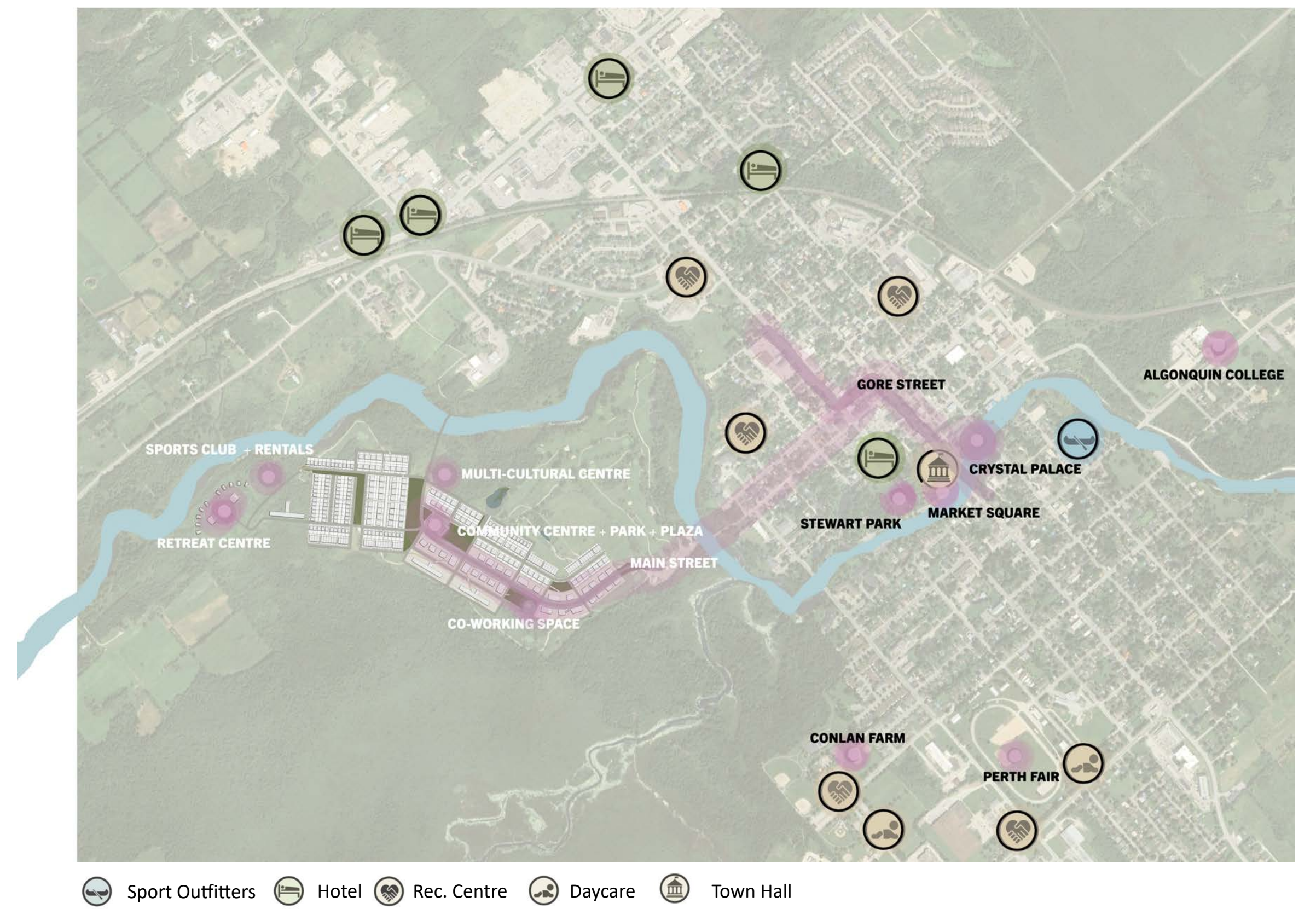
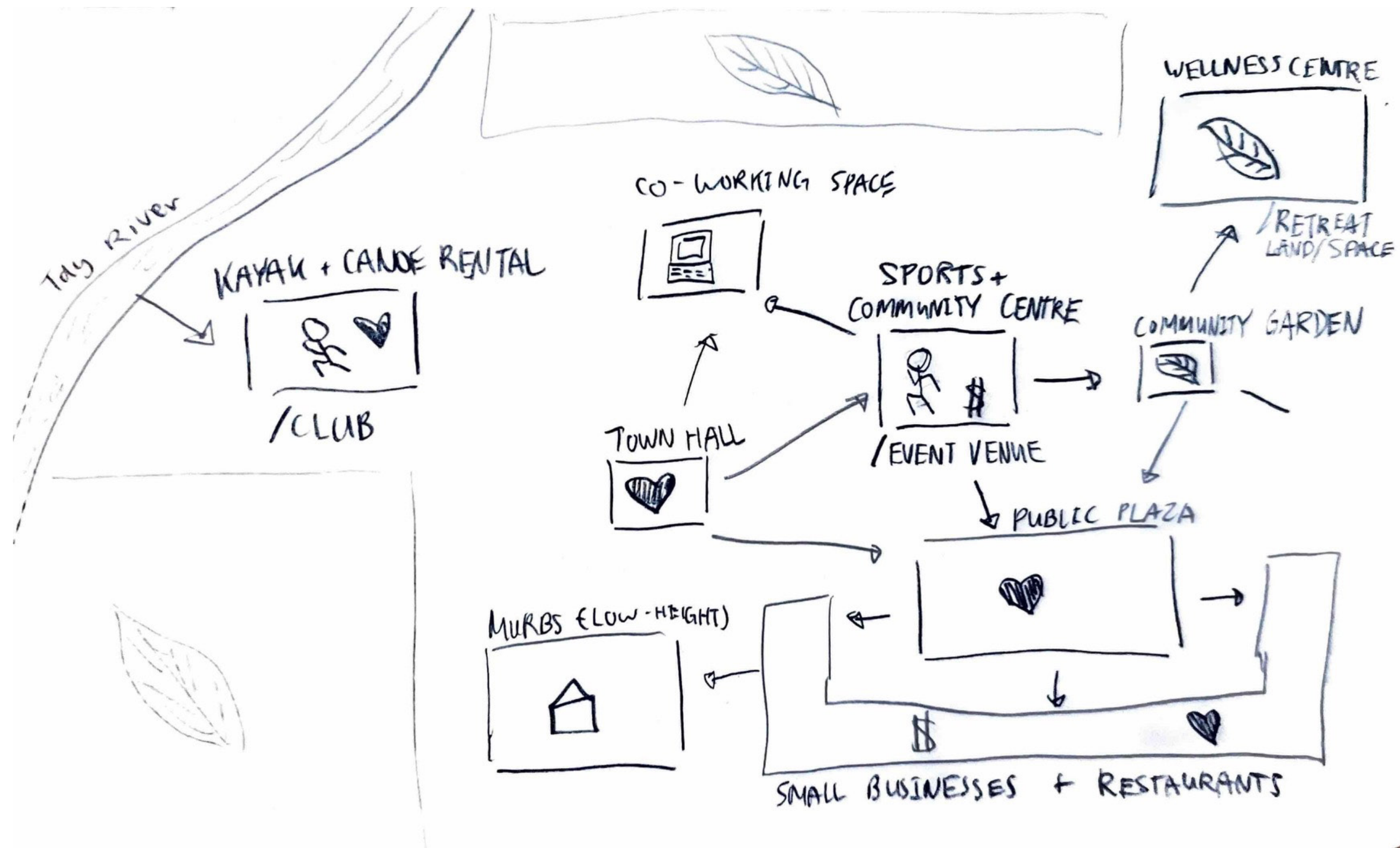
Developed Areas:
 Total Hectares Developed = 33.0
 Number of Housing Units = 1,344
 Number of Units / Hectare = 40.7

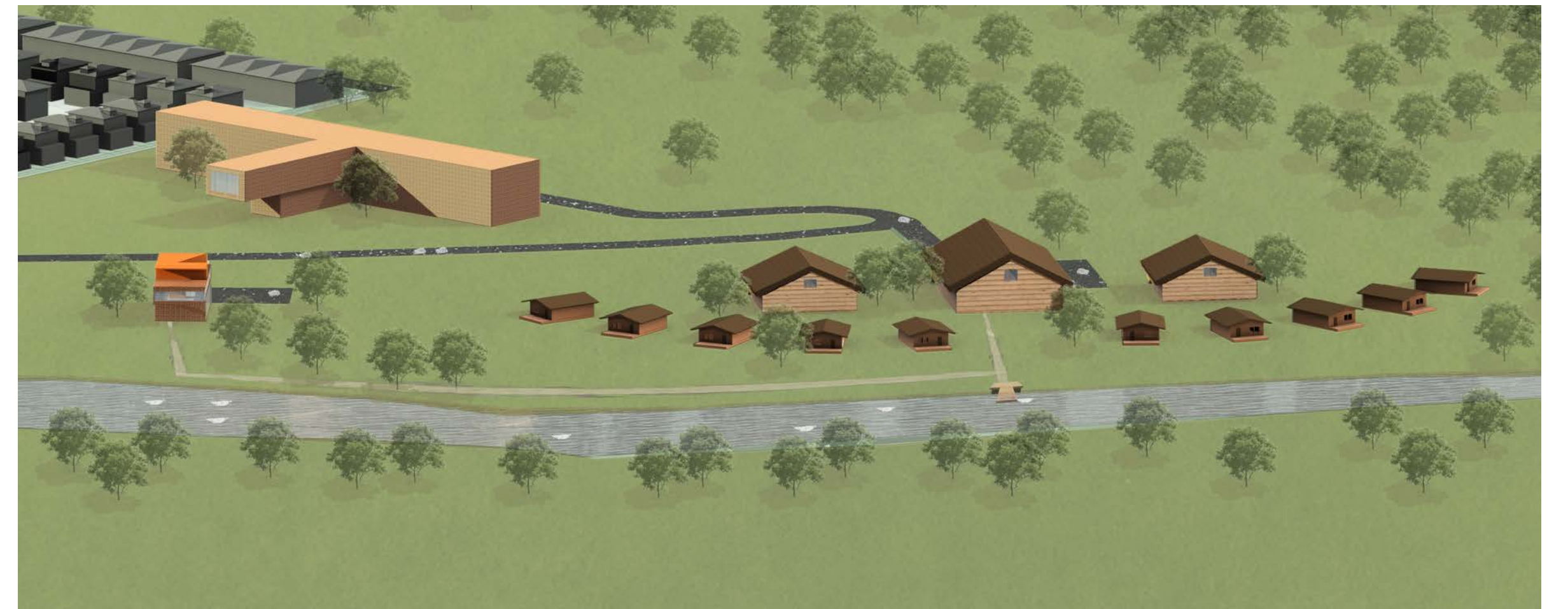
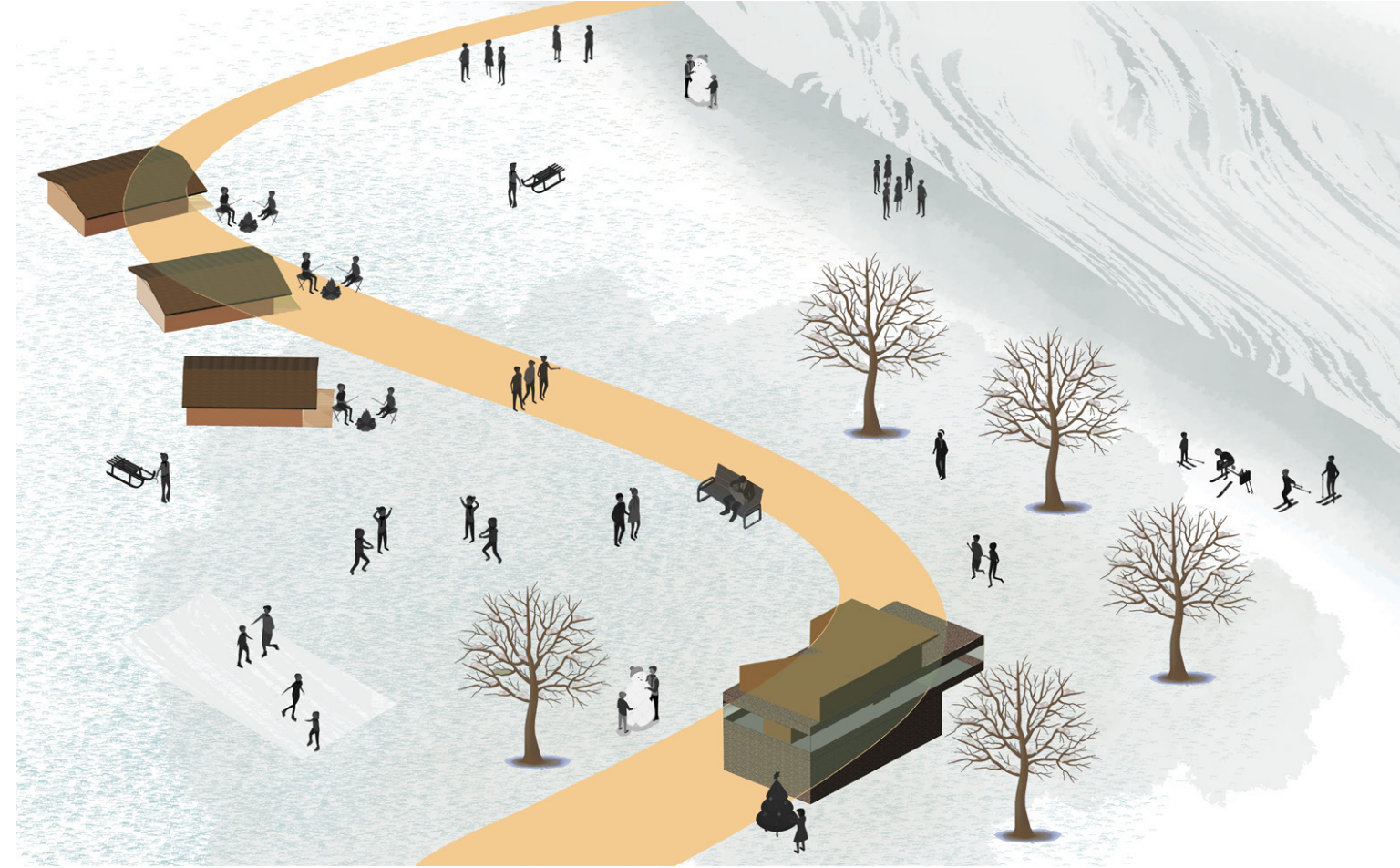
Undeveloped Areas:
 Hectare Municipal Parks = 12.5
 Hectares Wooded Area = 35.8
 Hectares Water Management Area = 19.8



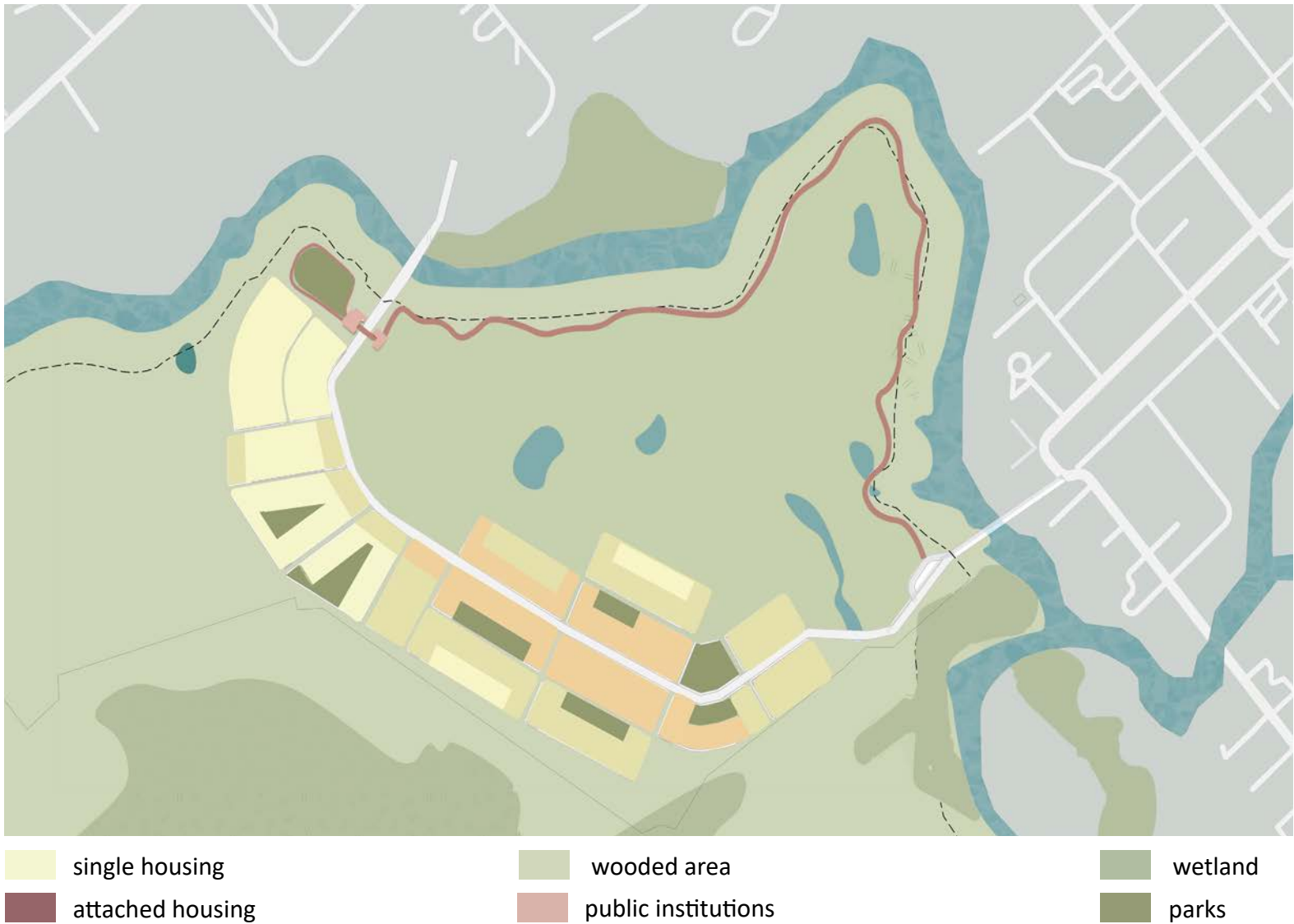
Victoria Guile started **Holistic Horizons** by designing a health retreat, a community centre, and affordable multiunit housing on the scenic northwest corner of the site along the Tay River. She maintained many of the golf course paths and designed the southeastern entrance to the neighbourhood as a retail and festival area connected to Peter Street.

Victoria Guile a lancé **Holistic Horizons** en concevant un endroit de retraite santé, un centre communautaire et des logements collectifs abordables dans le coin pittoresque aux nord-ouest du site, le long de la rivière Tay. Elle a conservé de nombreux sentiers du terrain de golf et a conçu l'entrée sud-est du quartier comme une zone de vente au détail et de festival reliée à la rue Peter.





SALMA IBRAHIM
The Perth Trail

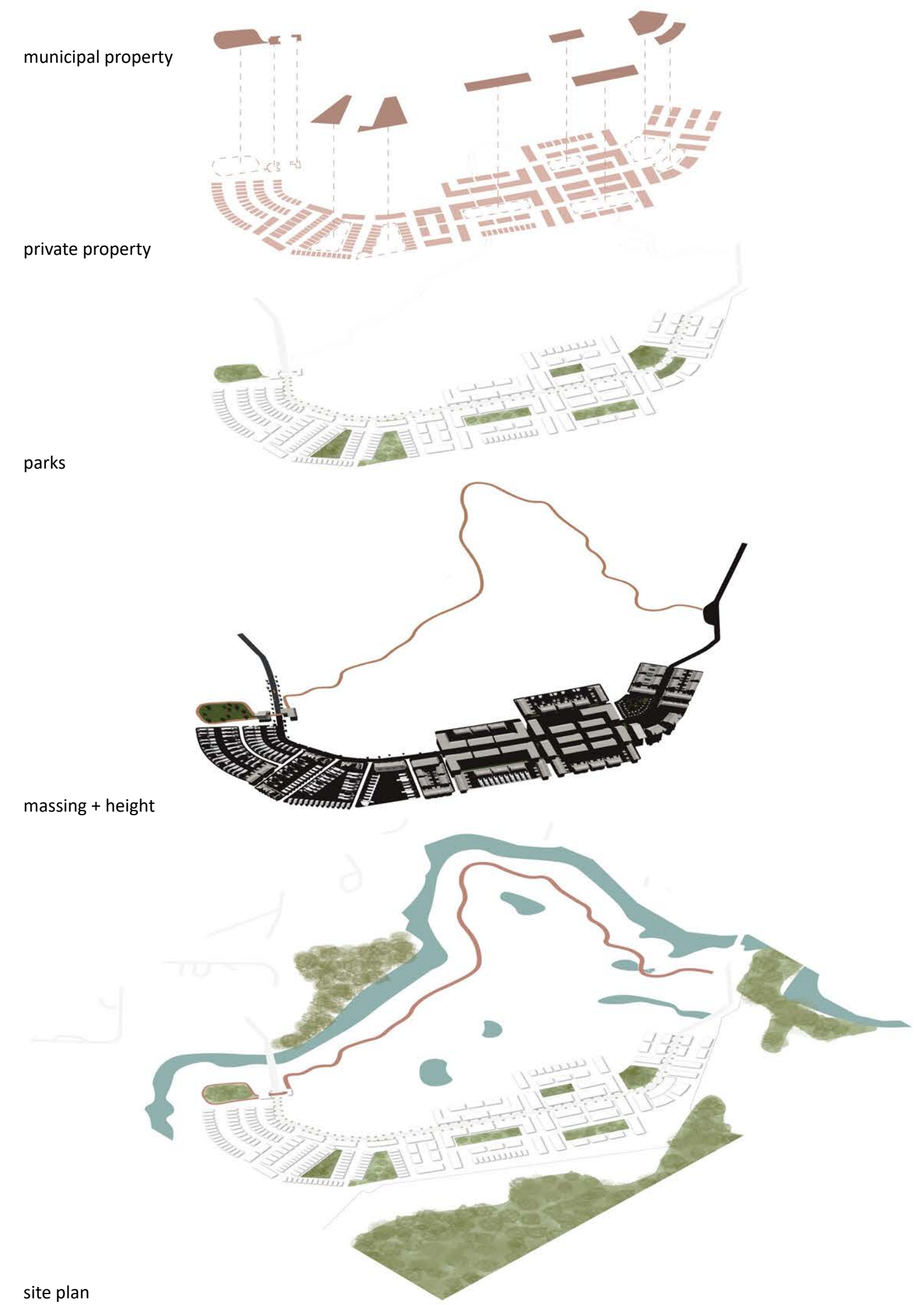
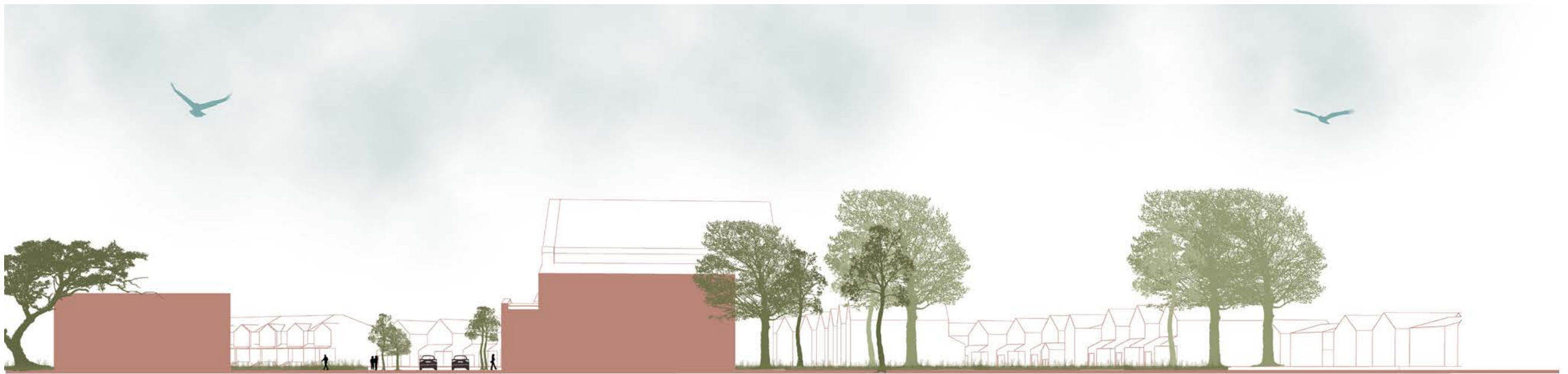


“Promoting active living and social connection through sustainable urban trails”



The Perth Trail project links together the Perth Golf Course, Tay Riverfront, and new residential neighbourhood with a red ribbon pathway, inspired by the landscape architect Kongjian Yu’s Red Ribbon Park. Salma Ibrahim designed mixed housing blocks surrounding accessible municipal parks. The northern park at the new bridge connects to a new multi-faith centre as well as a recreational community centre. The southern park at Peter Street offers a setting for fairs and vendors.

Le projet **Perth Trail** relie le parcours de golf de Perth, le bord de la rivière Tay et le nouveau quartier résidentiel par un sentier en ruban rouge, inspiré du parc du ruban rouge de l’architecte paysagiste Kongjian Yu. Salma Ibrahim a conçu des blocs d’habitations mixtes entourant des parcs municipaux accessibles. Le parc nord du nouveau pont est relié à un nouveau centre multiculturel ainsi qu’à un centre communautaire récréatif. Le parc sud de Peter Street offre un cadre pour les foires et les vendeurs.

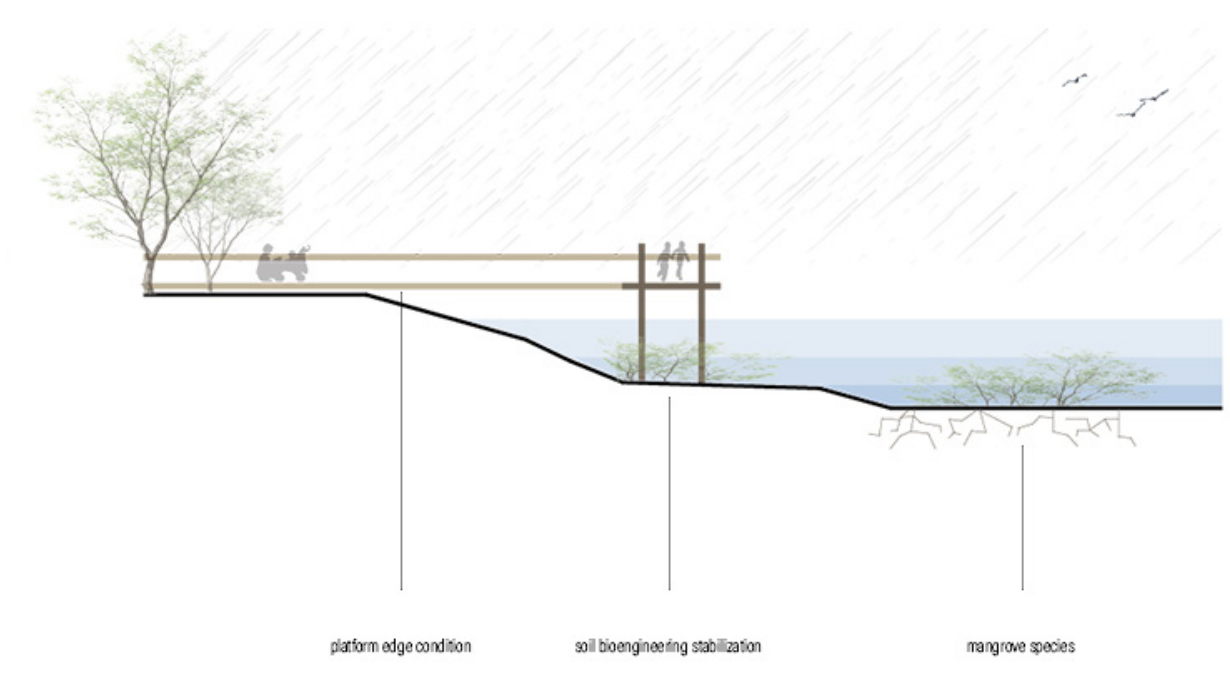


VENESSA LEI

West Tay Village

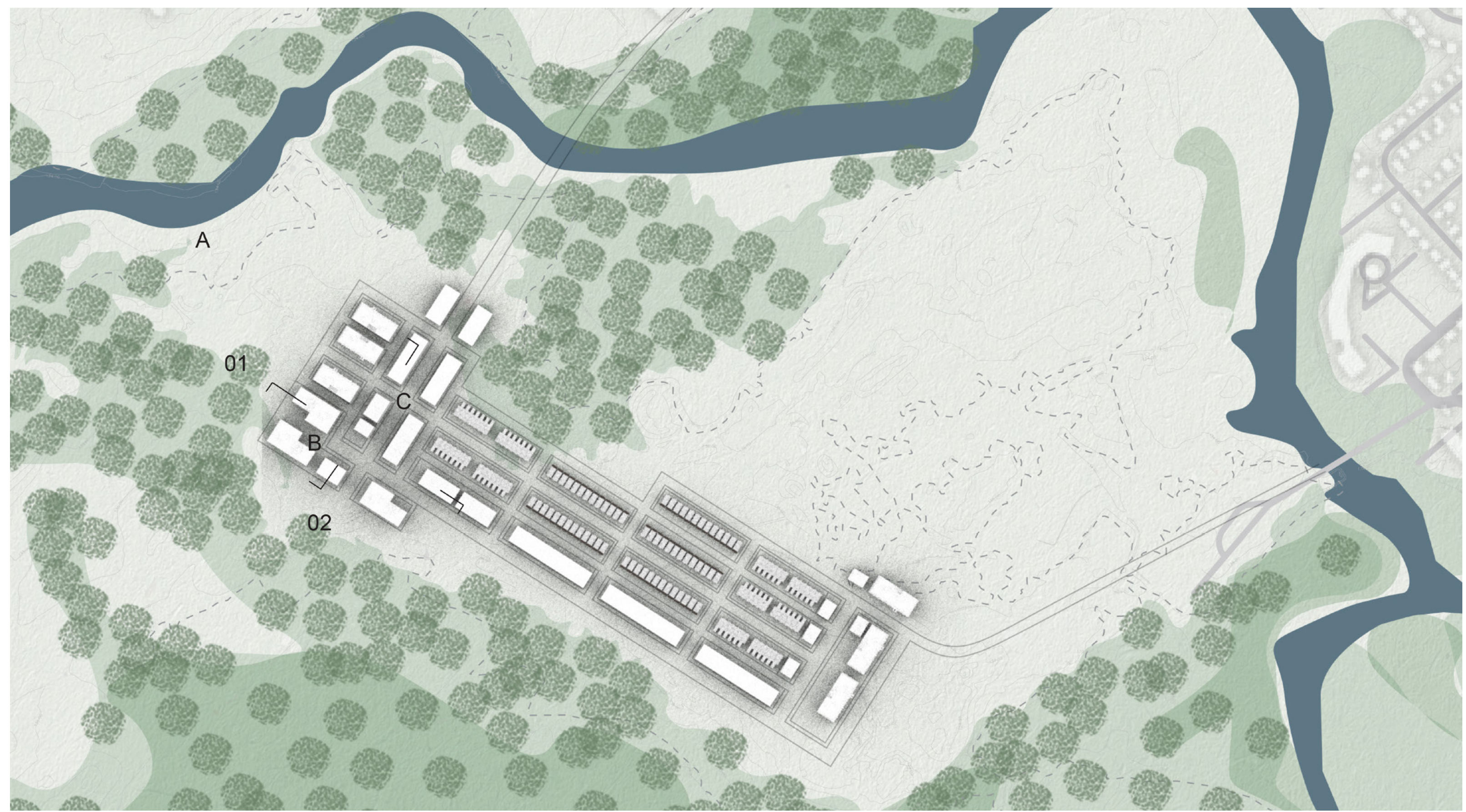


“Reimagining the Perth Golf Course as a cultural and recreational landmark central to the community’s identity”



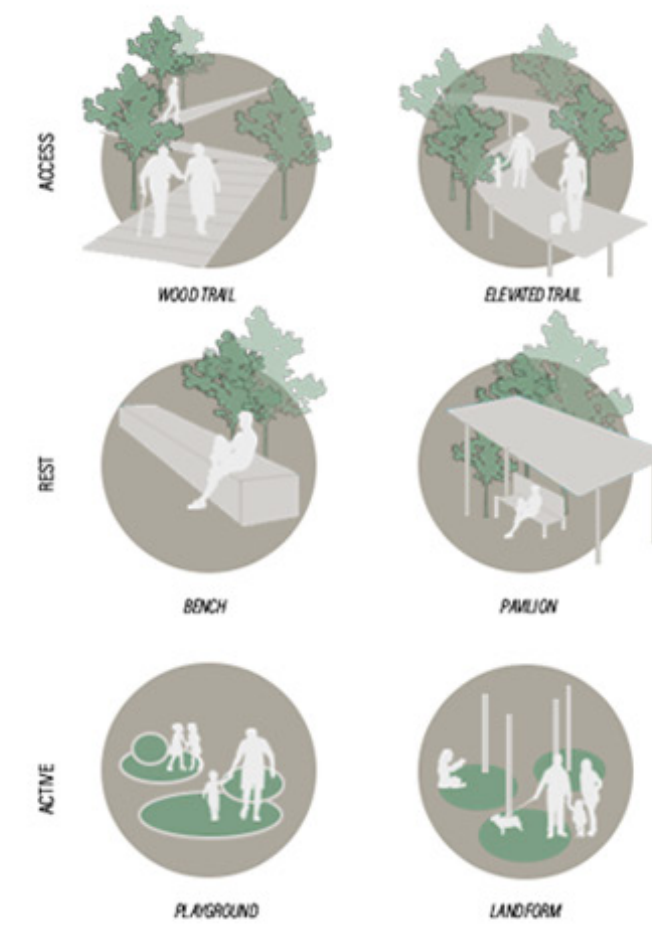
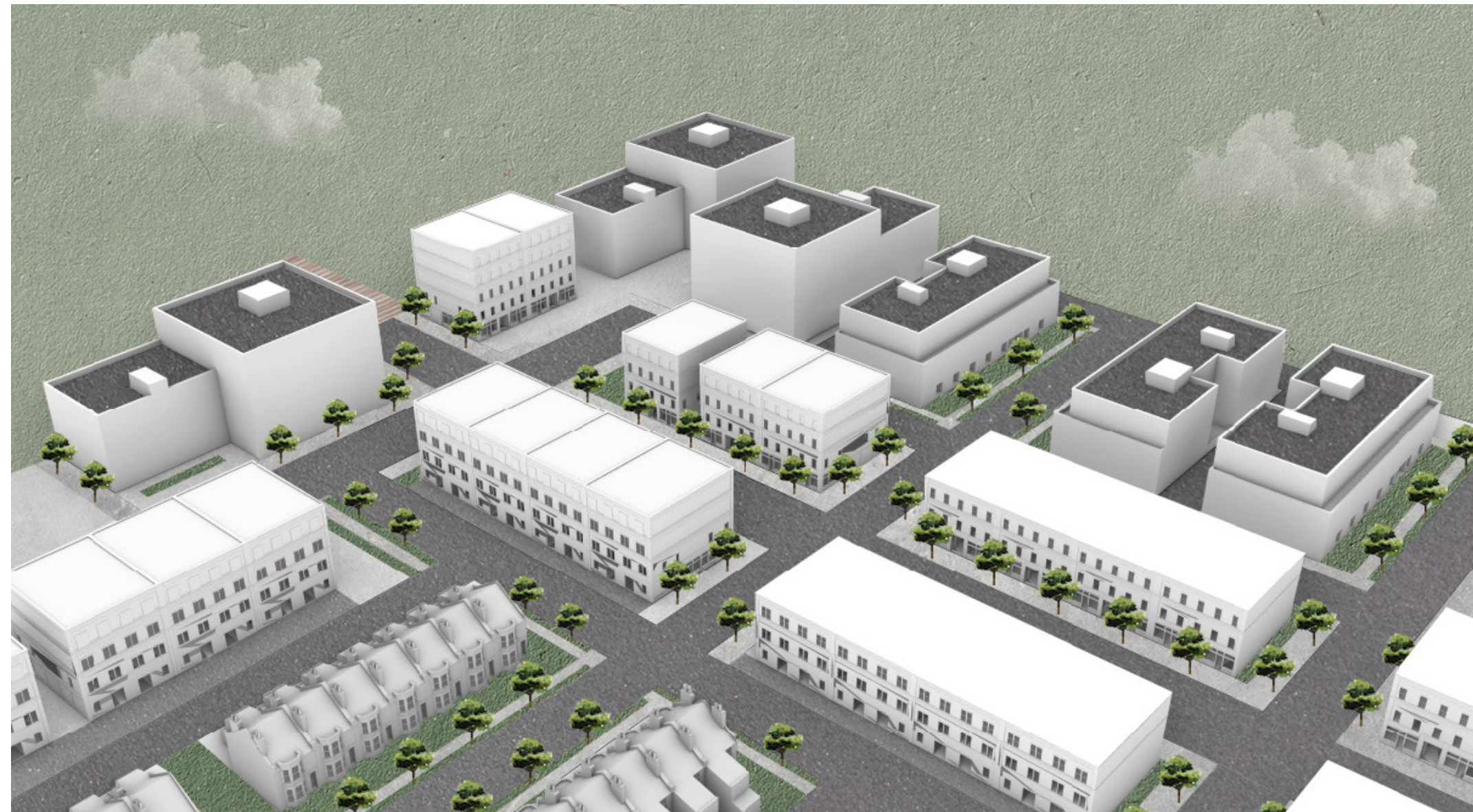
Developed Areas:
 Total Hectares Developed = 14
 Number of Housing Units = 800
 Number of Units / Hectare = 57

Undeveloped Areas:
 Hectares Municipal Parks = 3
 Hectares Wooded Area = 6
 Hectares Water Management Area = 12



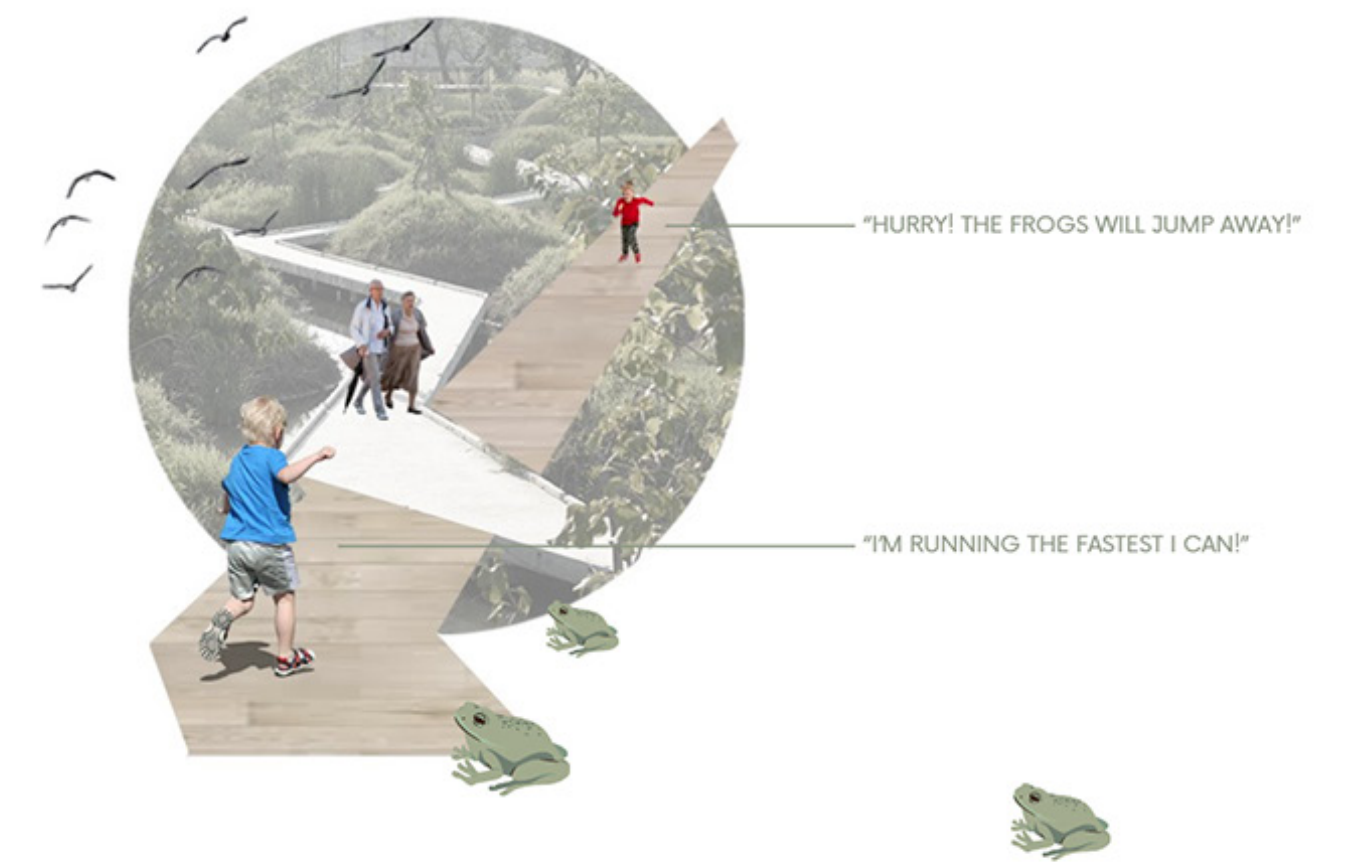
Vanessa Lei’s **West Tay Village** imagines a new neighbourhood of townhouses and multi-unit residential buildings. In this small-scale development, Lei imagined adding a daycare, a primary school, and a multi-faith building along a traditional main street and town square. Like other projects, the new village avoids development near wetlands and preserves woodlands, incorporating water management into the plan.

Le **West Tay Village** de Vanessa Lei imagine un nouveau quartier de maisons de ville et d’immeubles résidentiels à logements multiples. Dans ce développement à petite échelle, Lei a imaginé l’ajout d’une garderie, une école primaire et un bâtiment multiculturel le long d’une rue principale traditionnelle et d’une place publique. Comme d’autres projets, le nouveau village évite le développement à proximité des zones humides et préserve les zones boisées, intégrant la gestion de l’eau dans la planification.



EXPERIENCES ALONG WETLAND BOARDWALK

KIDS CATCHING WETLAND FROGS

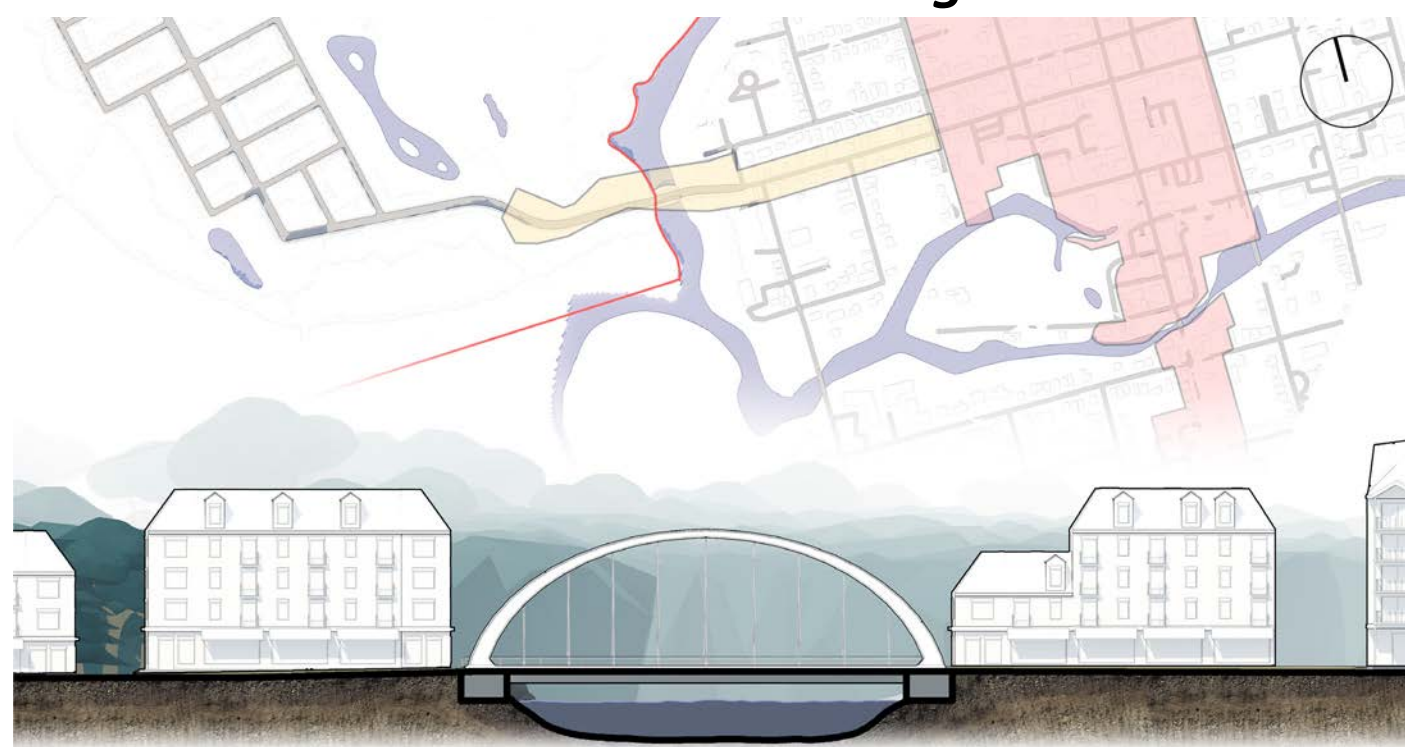


DOMINIC MASSÉ

Peter Street Walk



“Creating a destination village around the golf course allows Perth to attract tourism while maintaining its character and heritage”



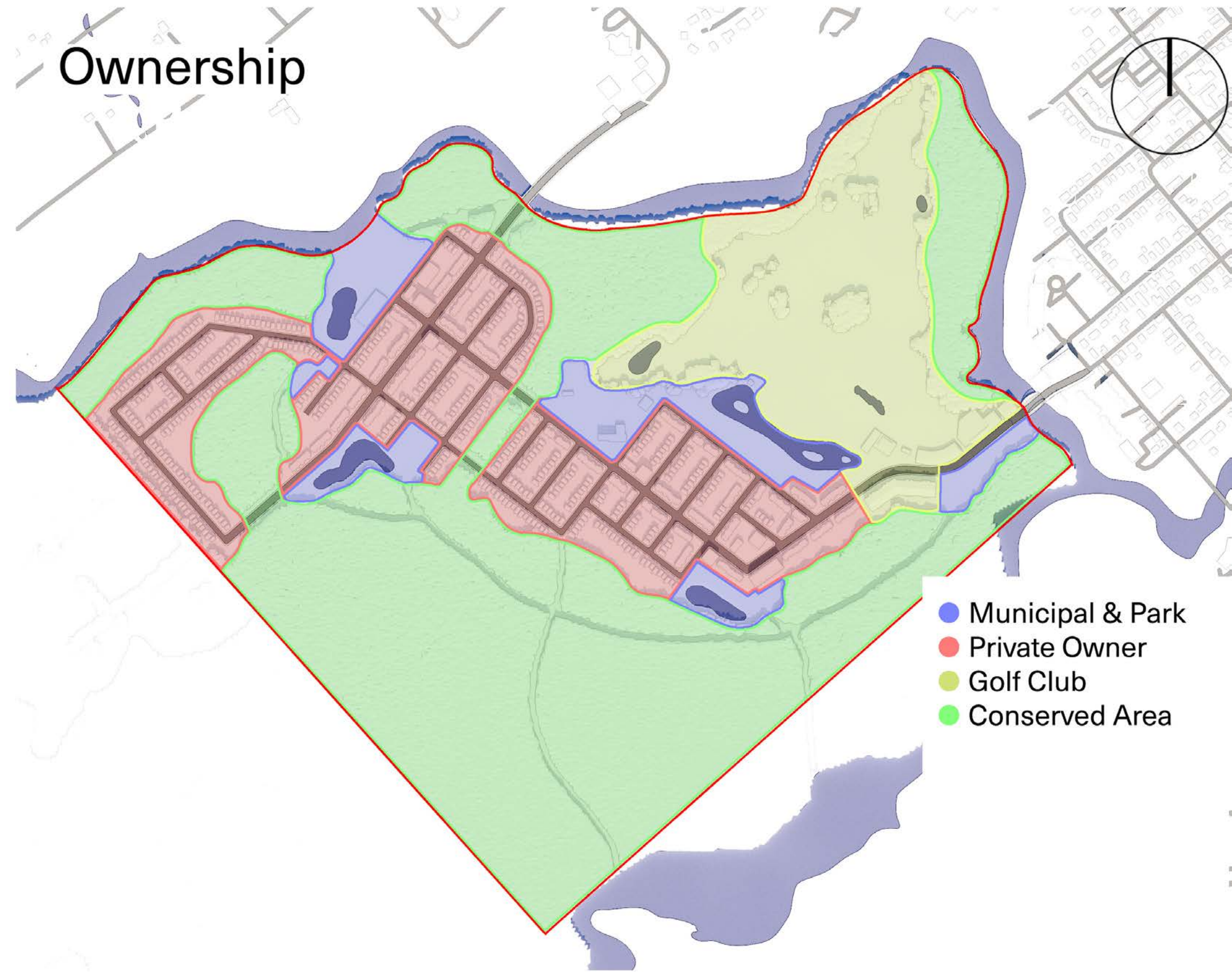
Developed Areas:
 Total Hectares Developed = 22.3
 Number of Housing Units = 3400
 Number of Units / Hectare = 25

Undeveloped Areas:
 Hectares Municipal Parks = 12.5
 Hectares Wooded Area = 58.5
 Hectares Water Management Area = 12

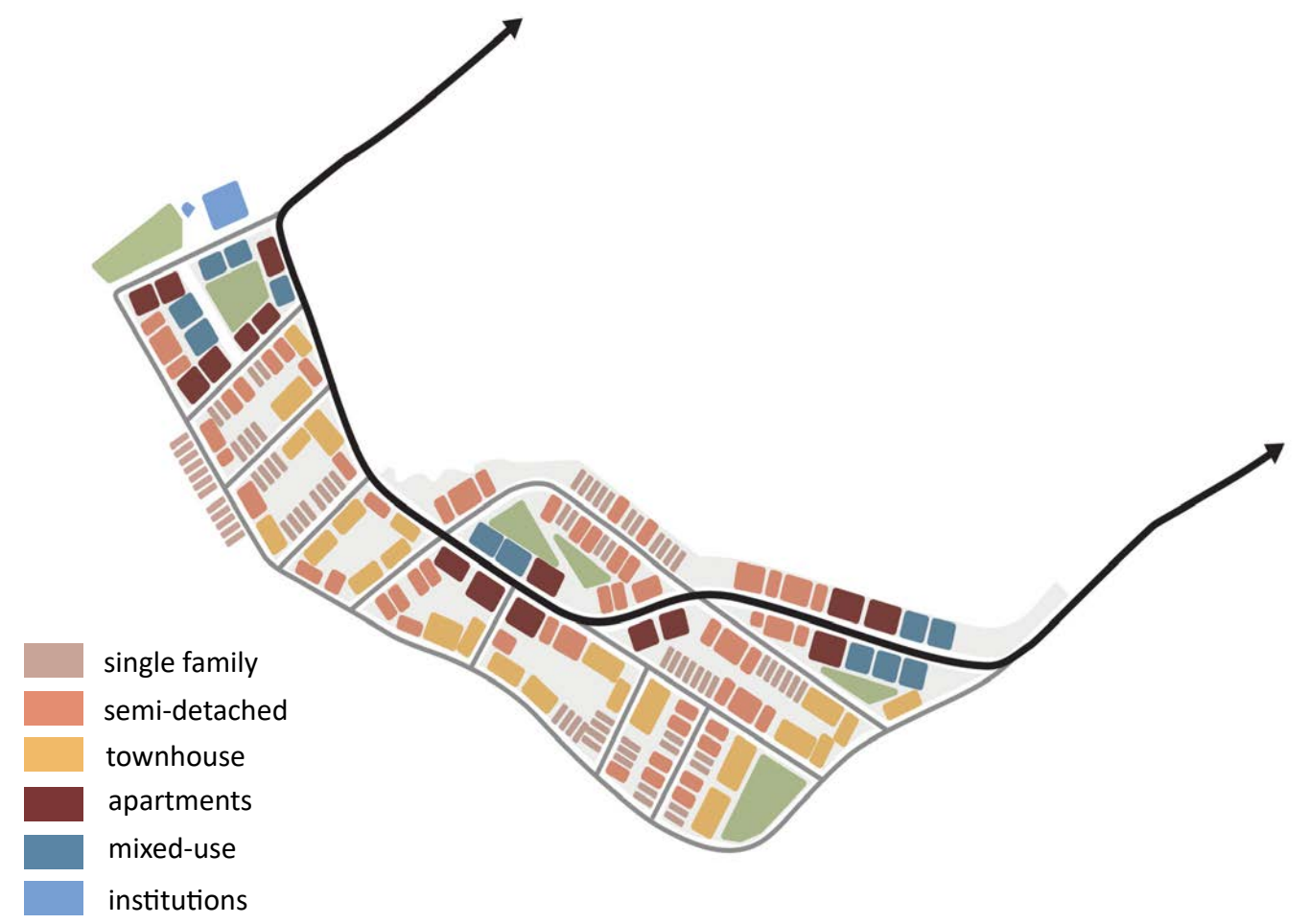


In **Peter Street Walk**, Dominic Massé proposes that the Perth Golf Course maintains ownership of a portion of the new development, allowing them to own and manage a “destination village” including a hotel, elder housing, restaurant, parking, and commercial and retail space to diversify their stream of income. The remaining residential area is designed to align with the typical massing and density of Perth, with a new Peter Street Bridge and street extension as a new hub of activity to ensure the connectivity between the new site and the existing town.

Dans **Peter Street Walk**, Dominic Massé propose que le parcours de golf de Perth conserve la propriété d’une partie du nouveau développement, ce qui leur permettrait de posséder et de gérer un « village de destination » comprenant un hôtel, un logement pour personnes âgées, un restaurant, un stationnement et un espace commercial de vente au détail. diversifier leurs sources de revenus. La zone résidentielle restante est conçue pour s’aligner sur la forme et la densité typiques de Perth, avec un nouveau pont de la rue Peter et une extension de la rue comme nouveau centre d’activité pour assurer la connectivité entre le nouveau site et la ville existante.



EMILYN MONZON
Tay River Terrace



“Fostering a harmonious blend of ecological stewardship, community vitality, and design innovation”



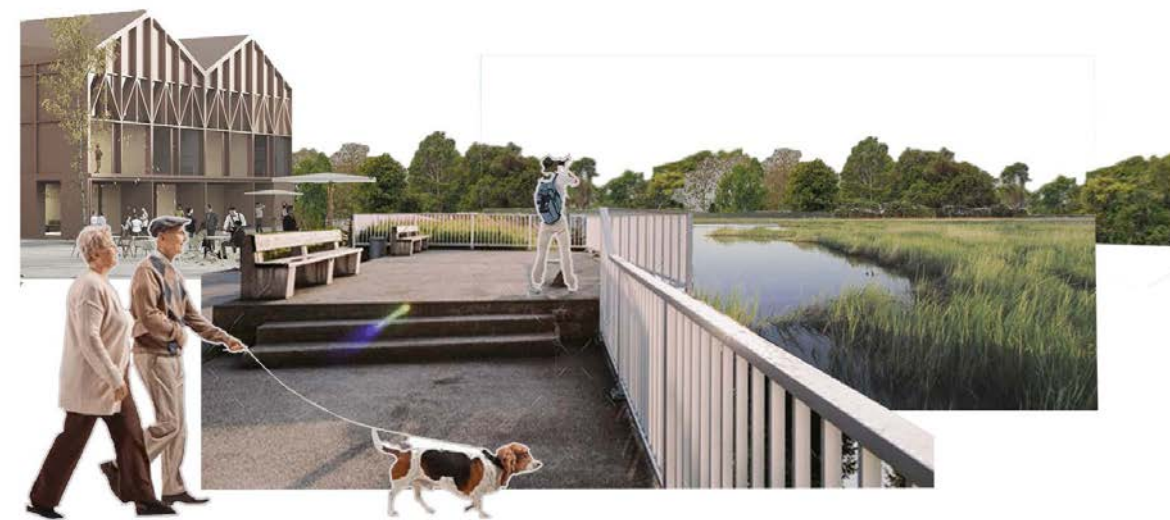
Developed Areas:
 Total Hectares Developed = 24.45
 Number of Housing Units = 1095
 Number of Units / Hectare = 44.8

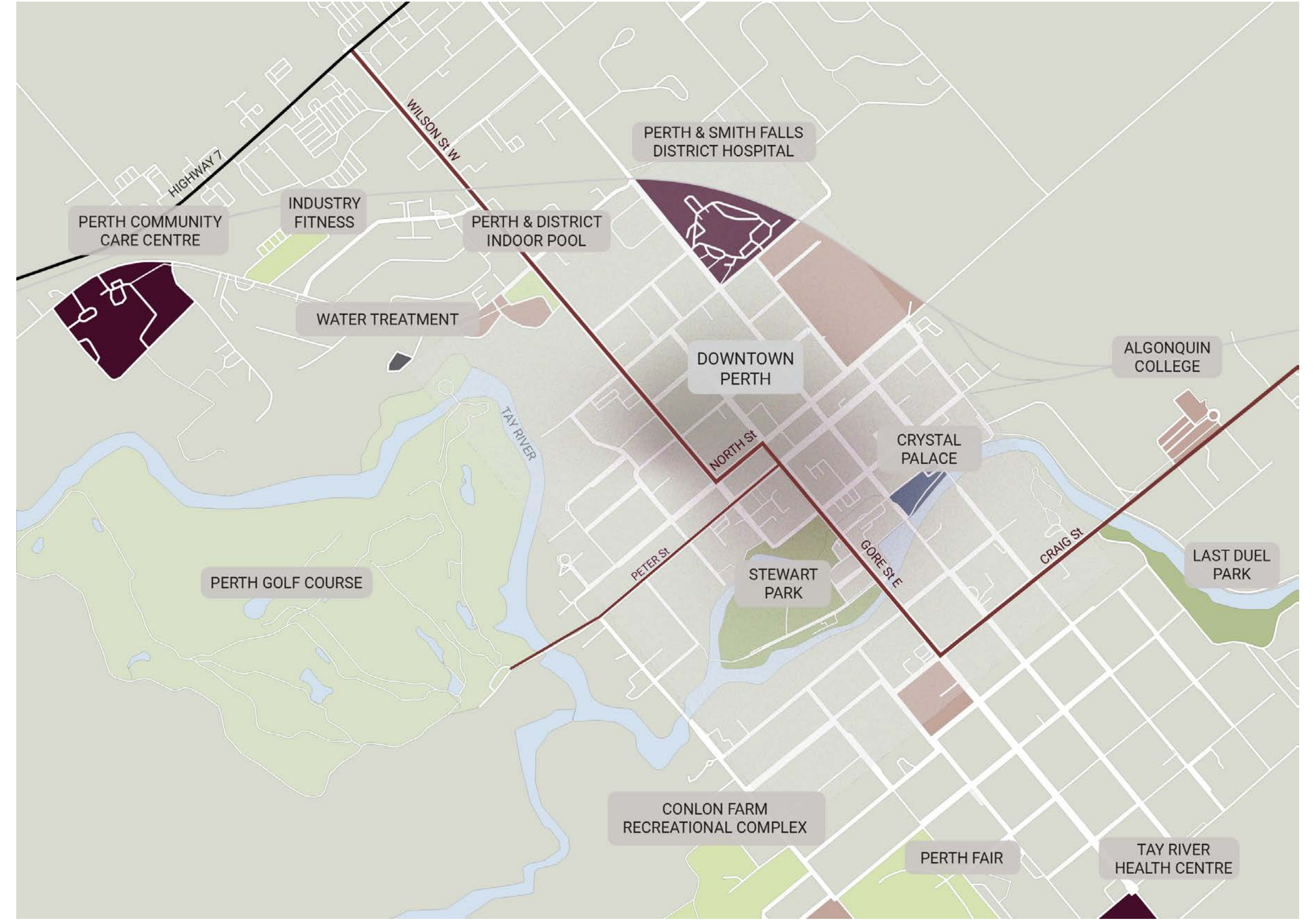
Undeveloped Areas:
 Hectare Municipal Parks = 1.27
 Hectares Wooded Area = 65.53
 Hectares Water Management Area = 43.19



Emilyn Monzon’s **Tay River Terrace** imagines mixed use and multifamily housing for a more populous Perth, simultaneously proposing parks and boardwalks to maintain a strong connection to the environment. The plan includes a ‘woonerf’ -- a Dutch-style pedestrian and slow vehicle street, which would connect the northwestern part of the site to a public plaza and cafe overlooking the Tay River.

Tay River Terrace d’Emilyn Monzon imagine des logements à usage mixte et multifamiliaux pour un Perth plus peuplée, proposant simultanément des parcs et des promenades pour maintenir un lien fort avec l’environnement. Le plan comprend un « woonerf » – une rue piétonne et réservée aux véhicules lents de style hollandais, qui relierait la partie nord-ouest du site à une place publique et à un café surplombant la Rivière Tay.





MADISON VAN RYSWYK

O'Tay Riverfront



- 1-2 residential storey
- 3-4 residential storey
- 4 residential storey
- 3-4 storey mixed use
- 3-4 storey commercial office
- 3-4 storey community + facilities
- micro-forests
- public parks
- plazas

“Proposed main street and green spaces act as the heart of the community, blending ecological preservation with human interaction”

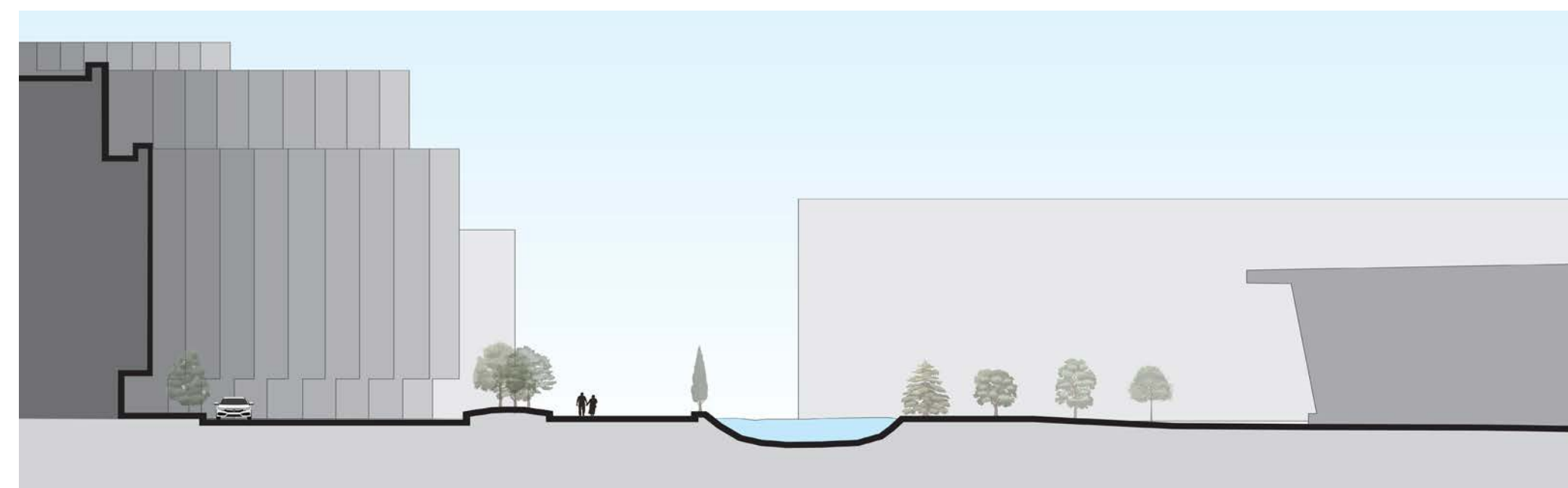
Developed Areas:
 Total Hectares Developed = 38.14
 Number of Housing Units = 1751
 Number of Units / Hectare = 45.9

Undeveloped Areas:
 Hectares Municipal Parks = 8.14
 Hectares Wooded Area = 43.08
 Hectares Water Management Area = 16.48

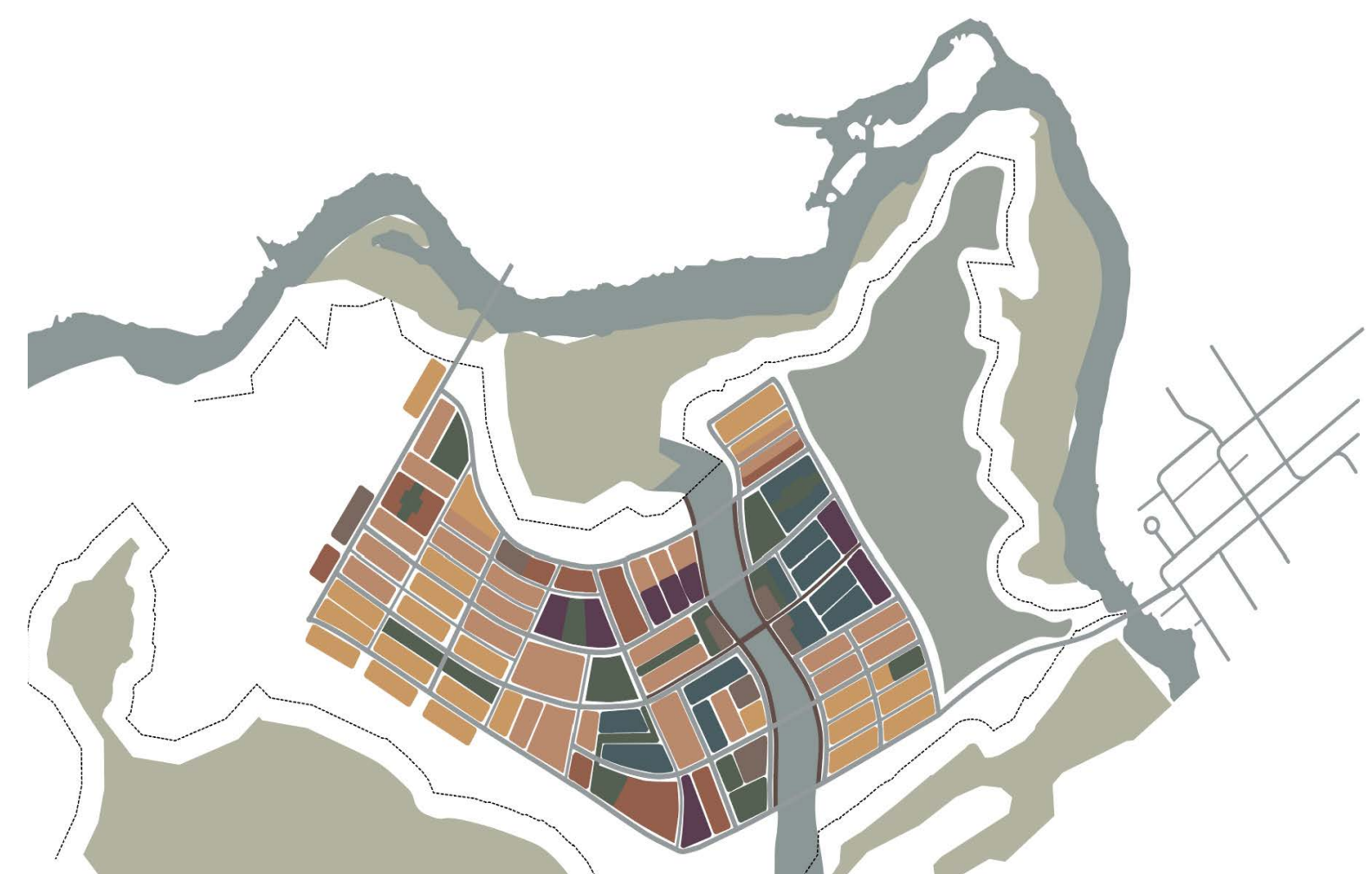


The design for **O'Tay Riverfront** maintains the significant woodlands area near the northern bridge to the site, wrapping this important natural destination with mixed-use buildings and apartment blocks, as well as civic buildings and a hub for public transit. Maddie Van Ryswyk drew on case studies from Germany and Sweden, in which new four and five-storey residential blocks look directly across a boulevard at a wooded area or natural park. She also situated her new community centre on this main street.

La conception d'**O'Tay Riverfront** préserve l'importante zone boisée près du pont nord menant au site, enveloppant cette importante destination naturelle de bâtiments à usage mixte et d'immeubles d'appartements, ainsi que de bâtiments municipaux et d'un centre pour transport en commun. Maddie Van Ryswyk s'est inspirée d'études de cas en Allemagne et en Suède, dans lesquelles de nouveaux immeubles résidentiels de quatre ou cinq étages donnent directement sur un boulevard, dans une zone boisée ou un parc naturel. Elle a également installé son nouveau centre communautaire sur cette rue principale.

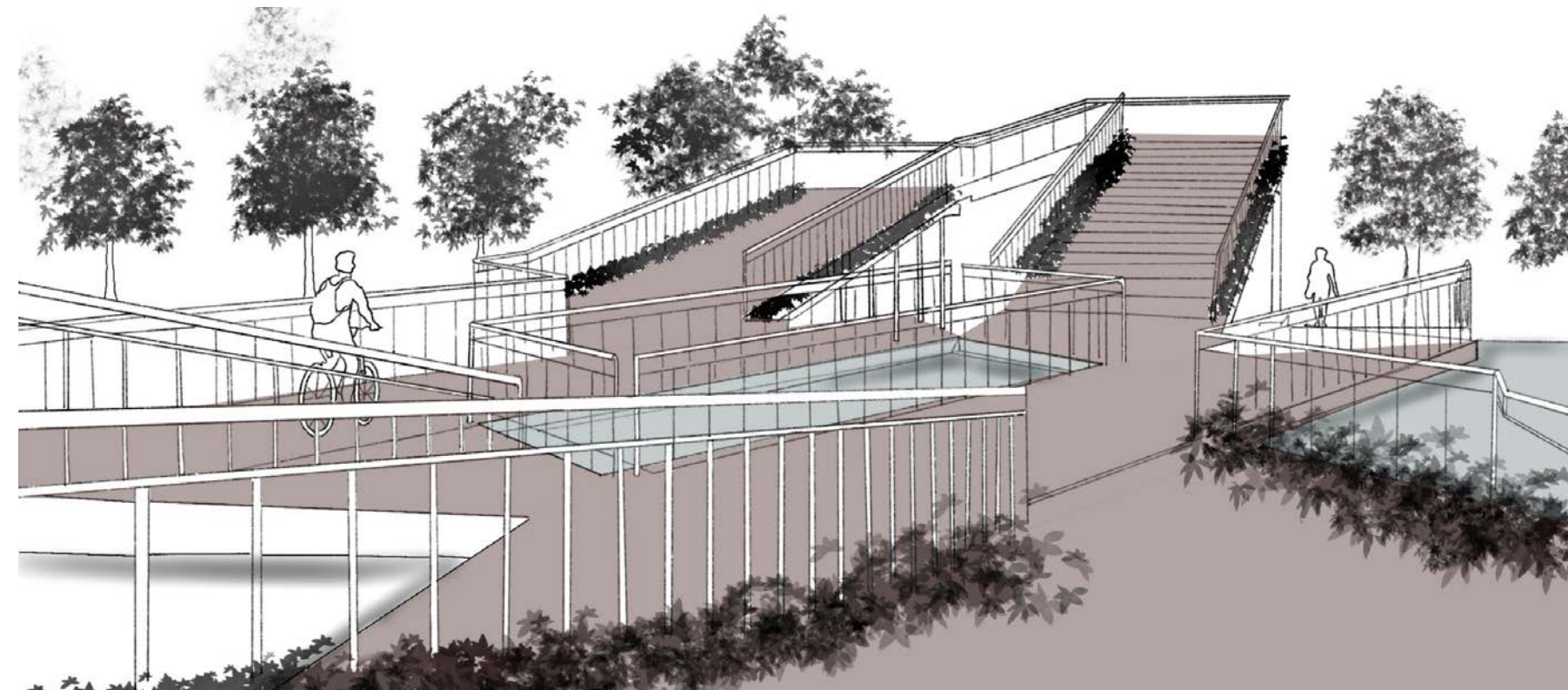


MUSKAN SHARMA
The Living Canal



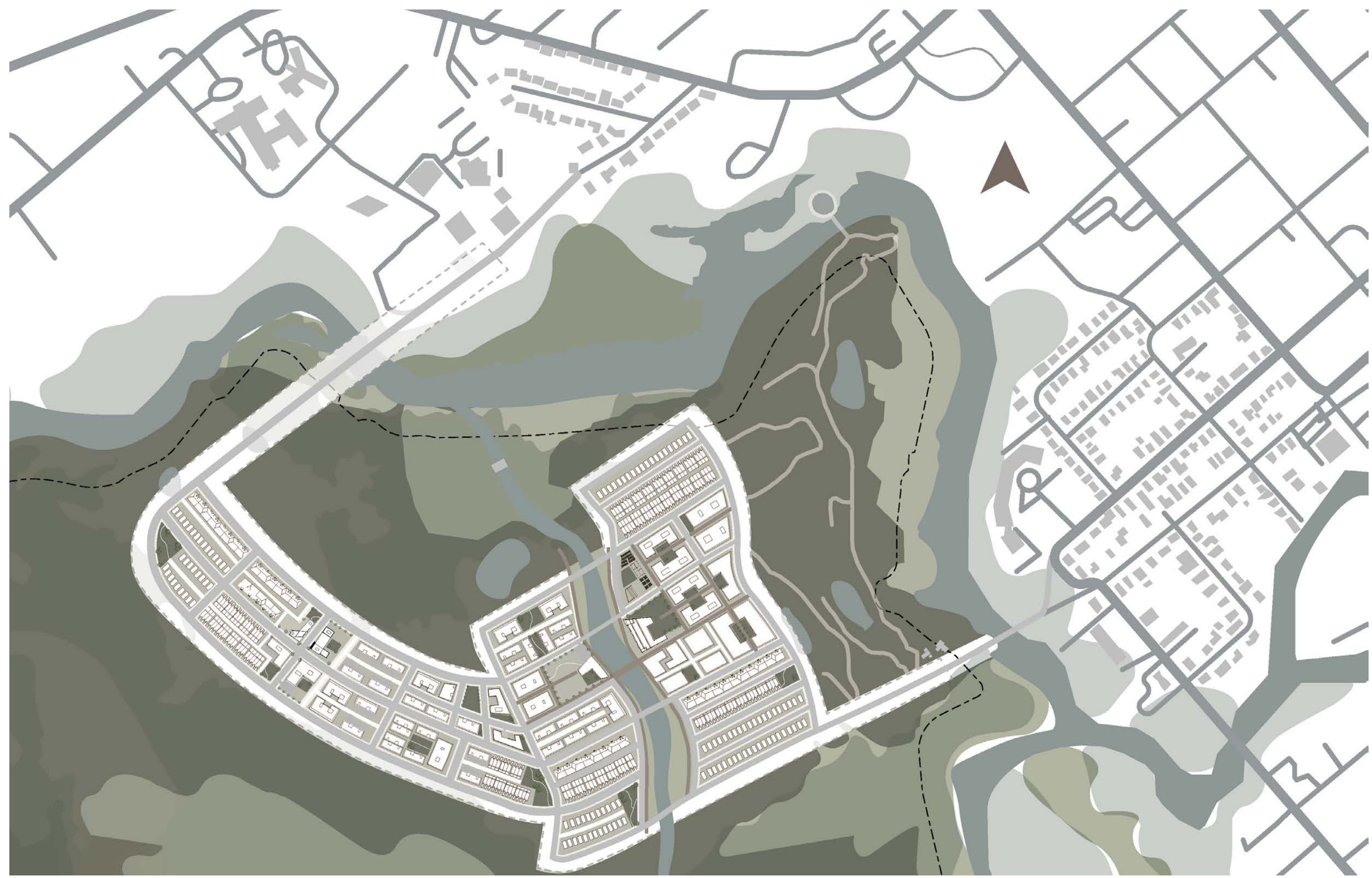
- single family
- attached housing
- low-rise multi-use
- commercial + residential
- public facilities + institutions
- municipal parks
- wetlands
- water

“The pedestrian bridge is more than infrastructure—it’s a connector of people, places, and possibilities, fostering engagement across the site”



Developed Areas:
 Total Hectares Developed = 36.63
 Number of Housing Units = 2917
 Number of Units / Hectare = 79

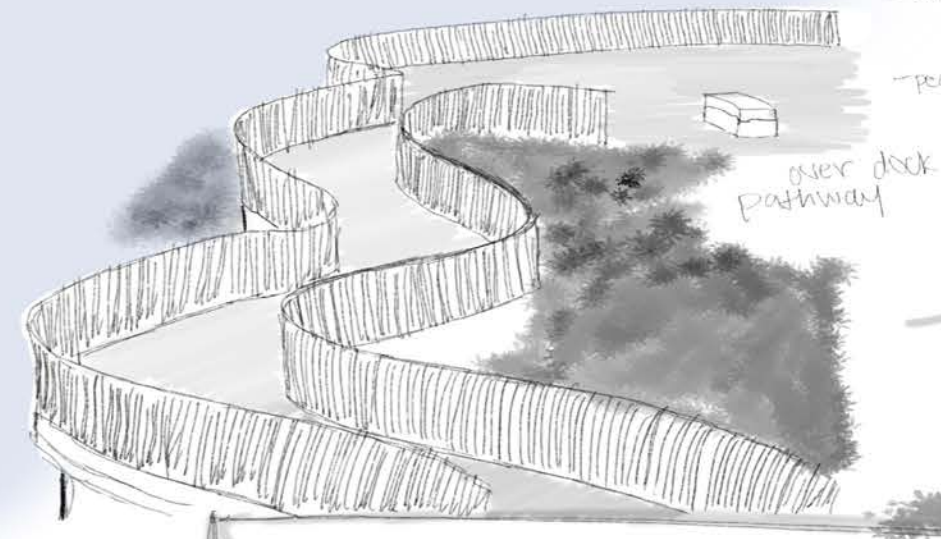
Undeveloped Areas:
 Hectares Municipal Parks = 1.68
 Hectares Wooded Area = 3.8
 Hectares Water Management Area = 70.9



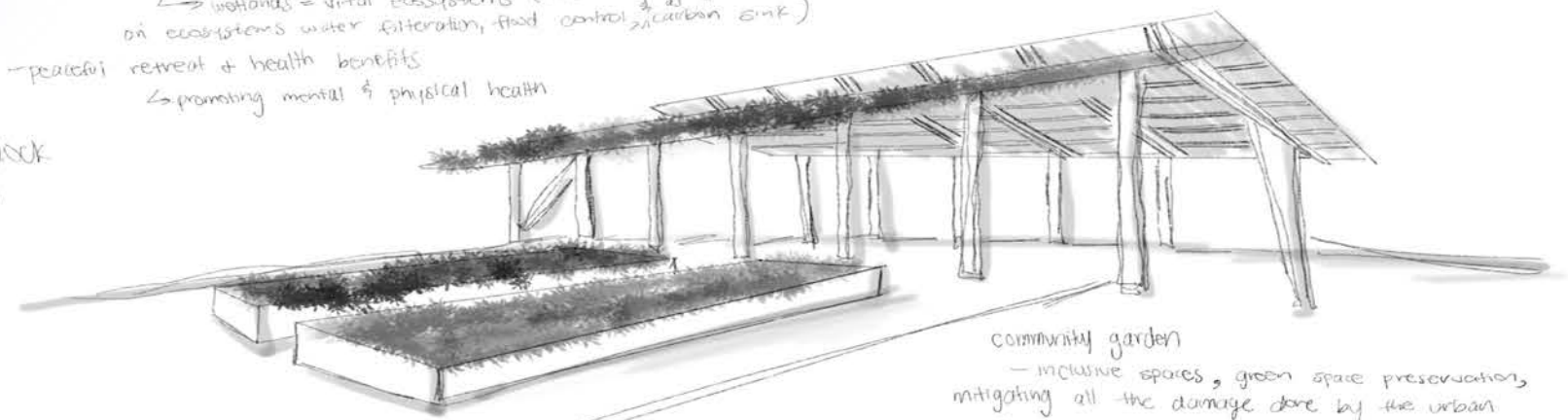
Muskan Sharma’s **Living Canal** project proposed addressing the flood zones on site by allowing a major water retention area to cross the site. This green area would only fill with water during flood events. Muskan also designed a pedestrian and cyclist bridge that acts as an accessible connection adjacent to housing, community gardens, a multifaith worship centre, and intergenerational community centre.

Le projet **Living Canal** de Muskan Sharma proposait de remédier aux zones inondables sur le site en permettant à une importante zone de rétention qui permet l’eau de traverser le site. Cet espace vert ne se remplirait d’eau qu’en cas d’inondation. Muskan a également conçu un pont pour piétons et cyclistes qui sert de lien accessible à côté des logements, des jardins communautaires, d’un centre multiculturel et d’un centre communautaire intergénérationnel.

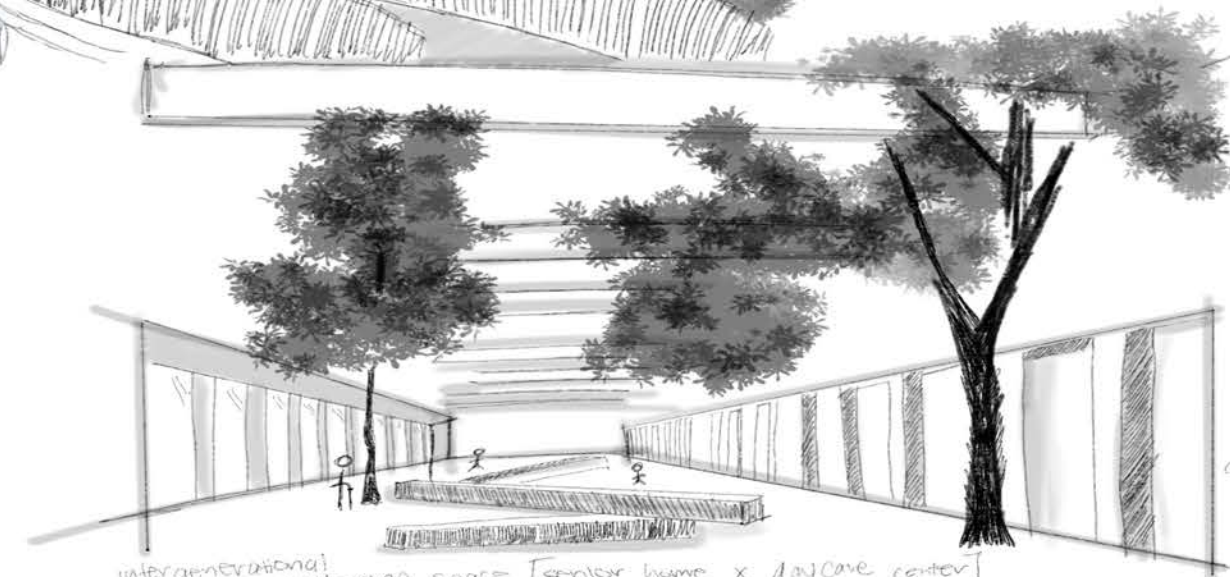
- accessibility = possible for all ages + abilities (wheelchairs + strollers) 6-85
- diverse ecosystems [including, amphibians, plants, other wildlife] observation without disturbing habitat
- immersion in nature - natural flood protection
- environmental education of awareness
 - ↳ visitors = vital ecosystems (information boards of ecosystems water filtration, flood control, carbon sink)
- peaceful retreat + health benefits
 - ↳ promoting mental + physical health



over deck pathway

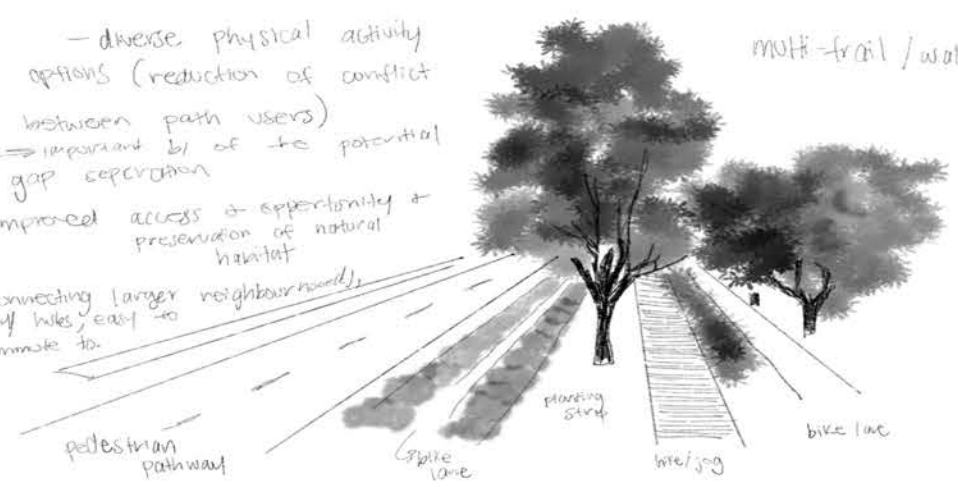


community garden
- inclusive spaces, green space preservation, mitigating all the damage done by the urban infrastructure, space for bonding/cultural exchange space, fostering a diversifying town!



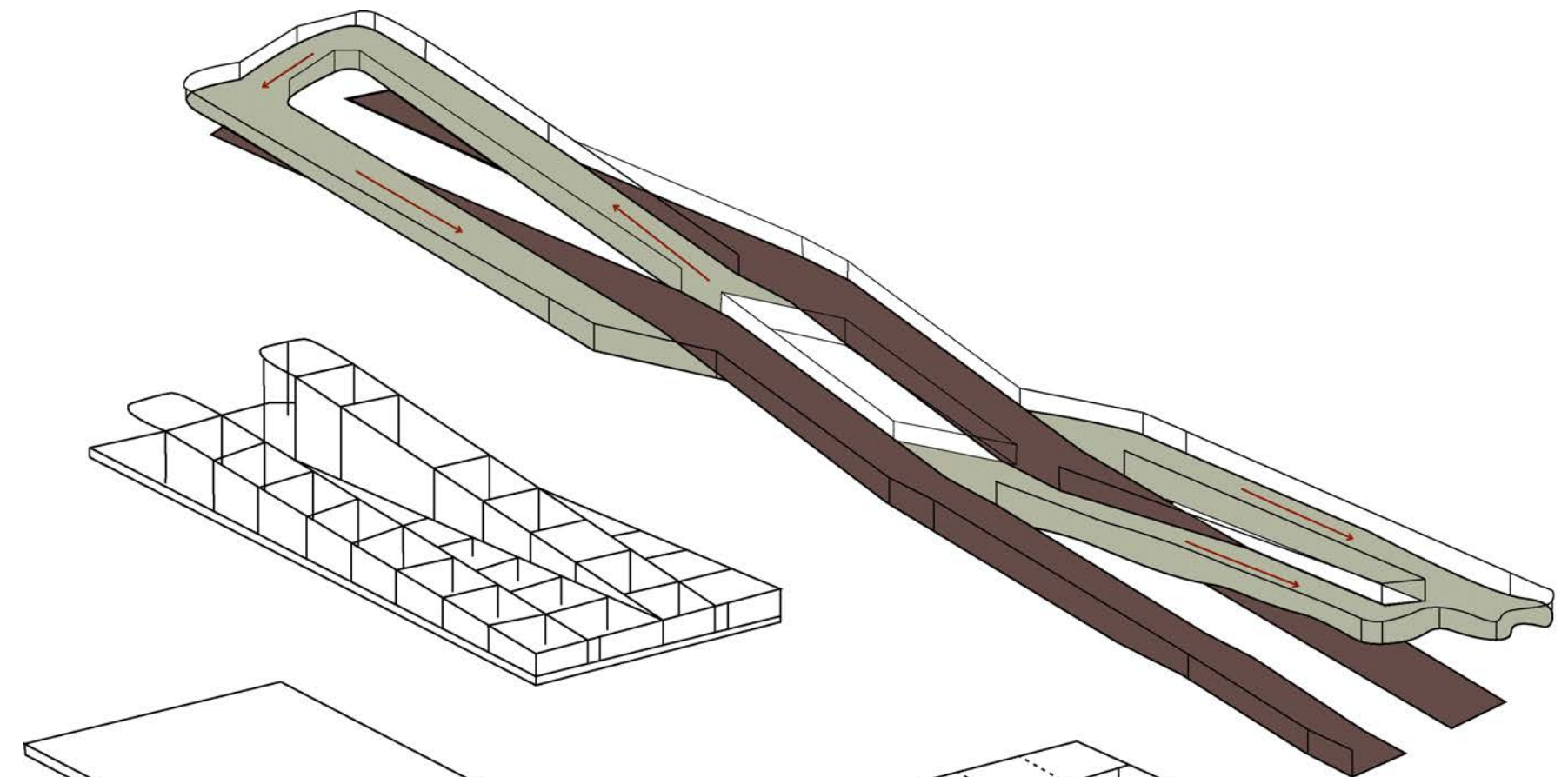
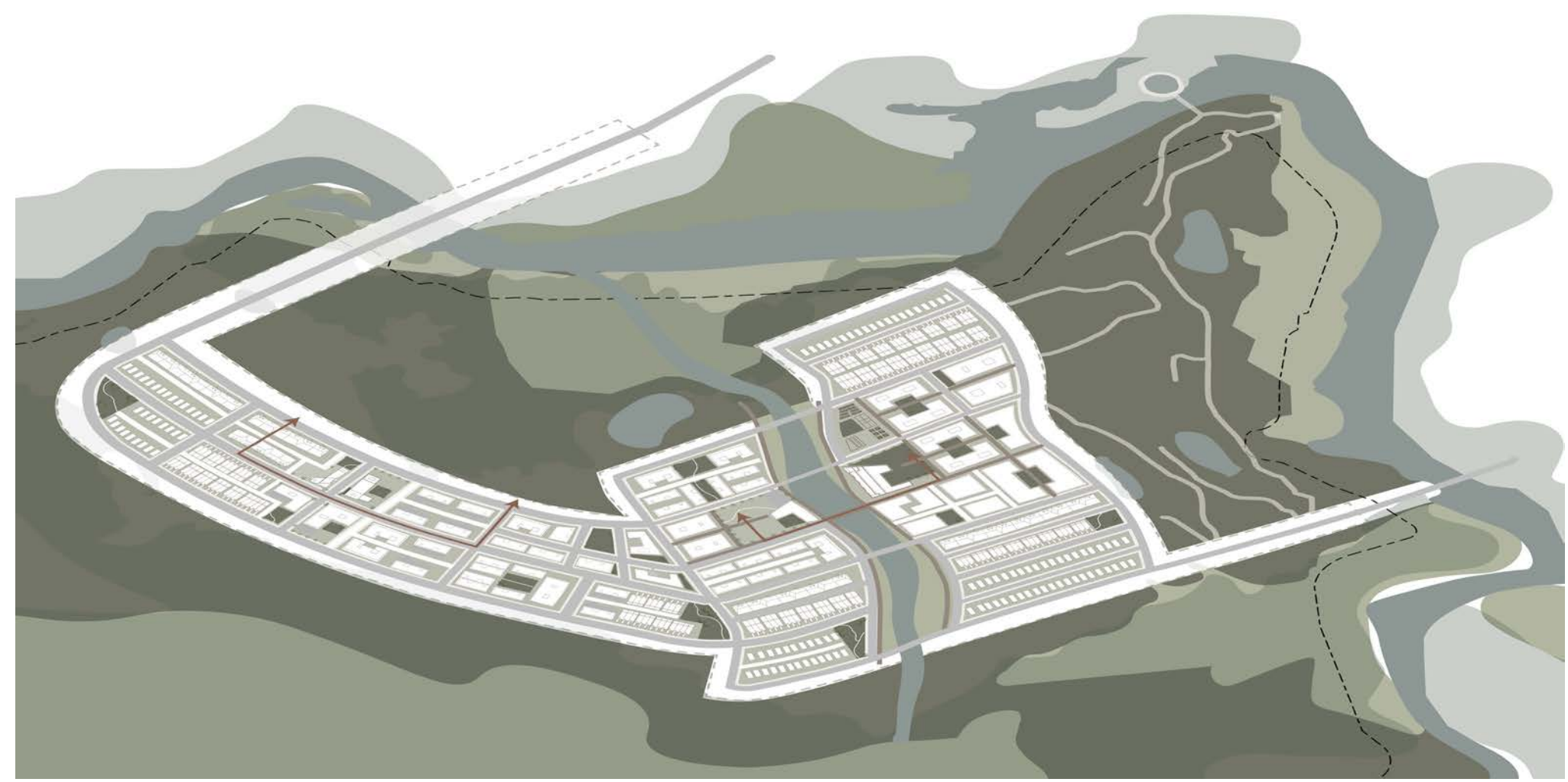
intergenerational gathering space [senior home x daycare center]
- mental wellbeing + skill sharing + social cohesion + community building + adaptability + civic engagement

- diverse physical activity options (reduction of conflict between path users)
- ↳ important by ref to potential age gap separation
- improved access + opportunity + preservation of natural habitat
- connecting larger neighbourhoods, community hubs, easy to commute to

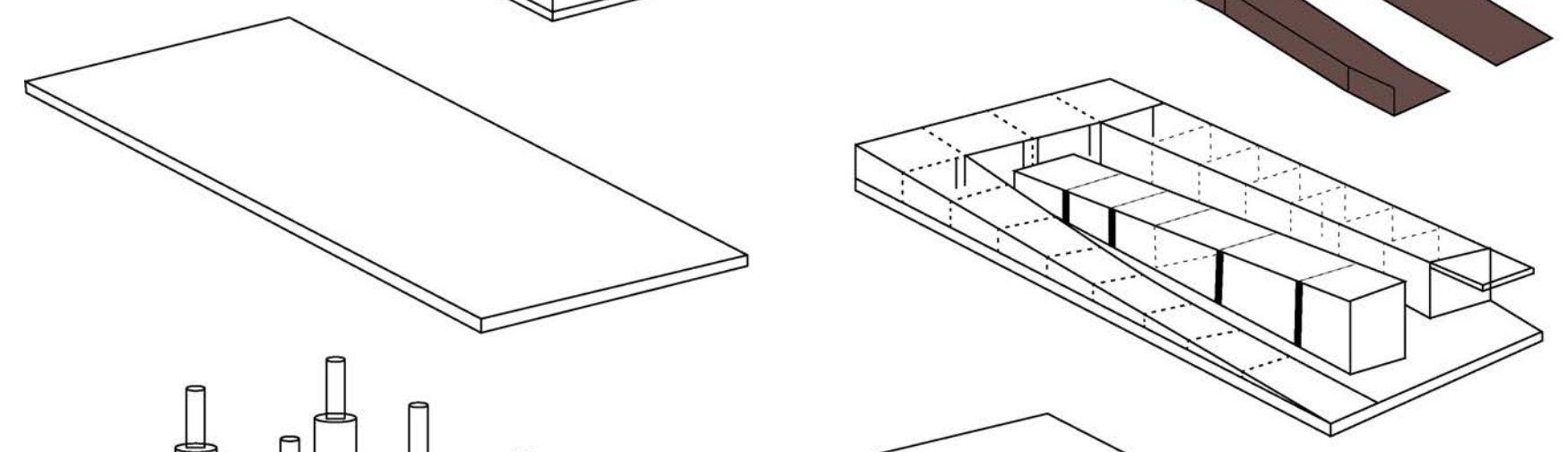


multi-trail/walkway path

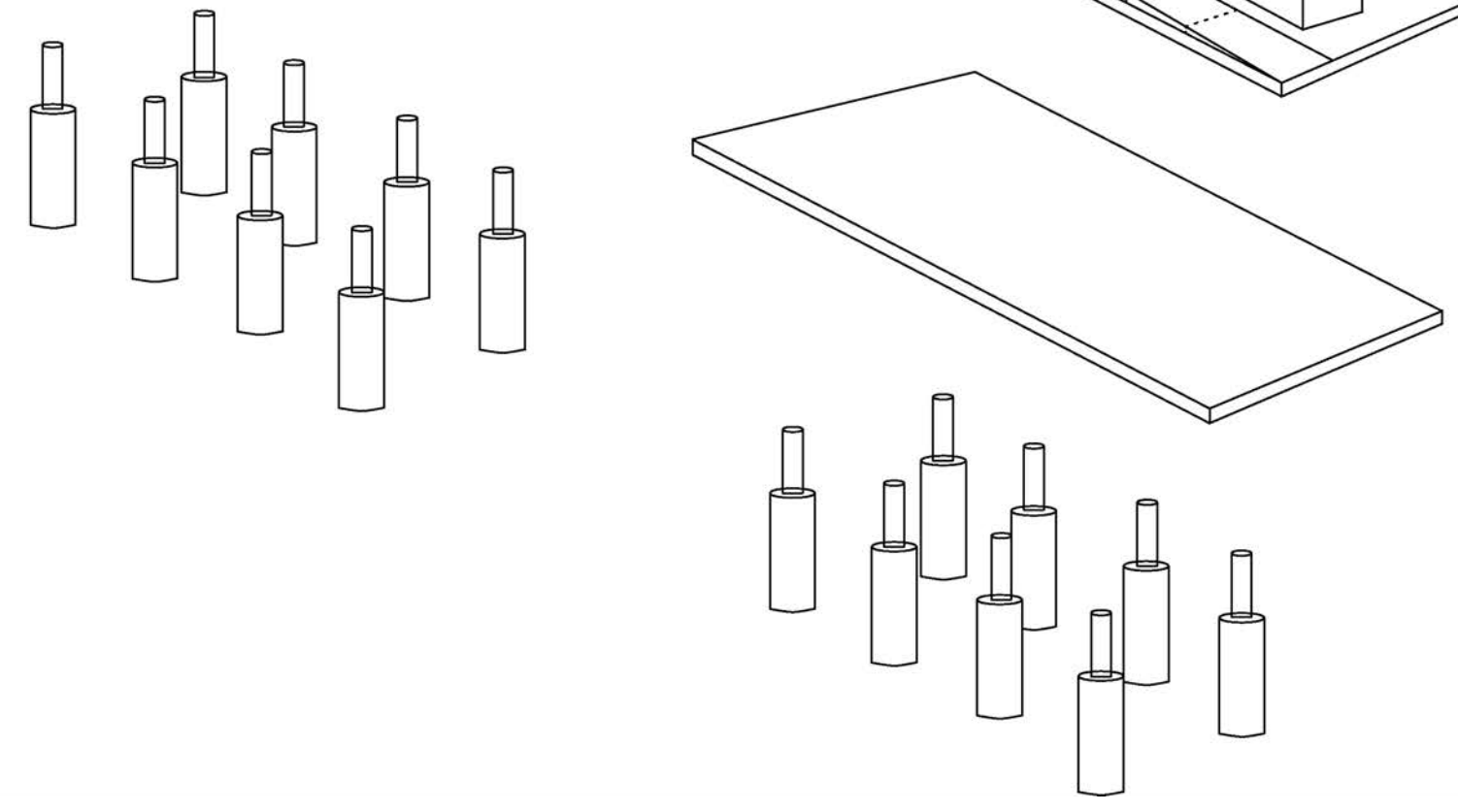
pedestrian pathway, stroller lane, wheelchair, bicycle lane



4 - GREEN RAMPS

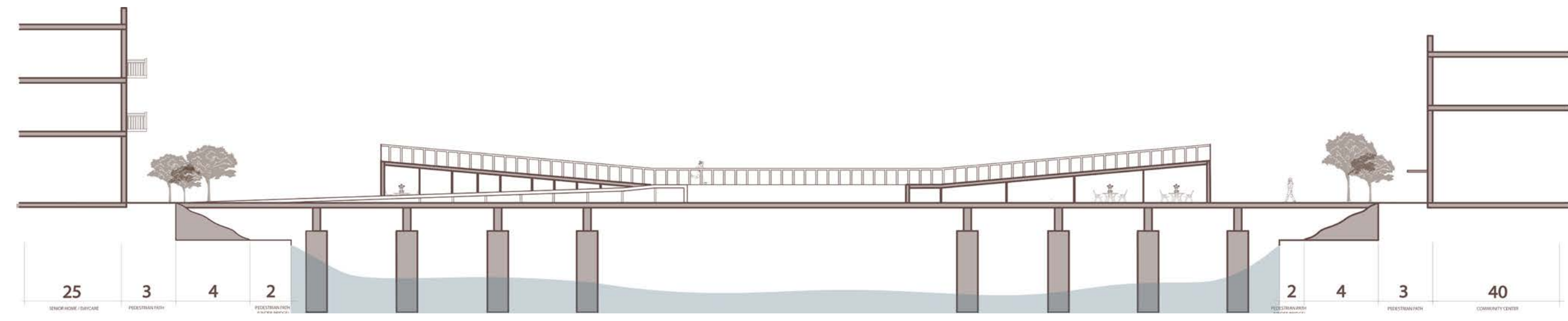


3 - GREEN STRUCTURE



2 - BRIDGE SLAB

1 - SUPPORTS



25 3 4 2 2 4 3 40

JESSICA SO
Brookside West



“Celebrating Perth’s wetlands and rich ecosystems by integrating stormwater channels with walkable pathways and public spaces”



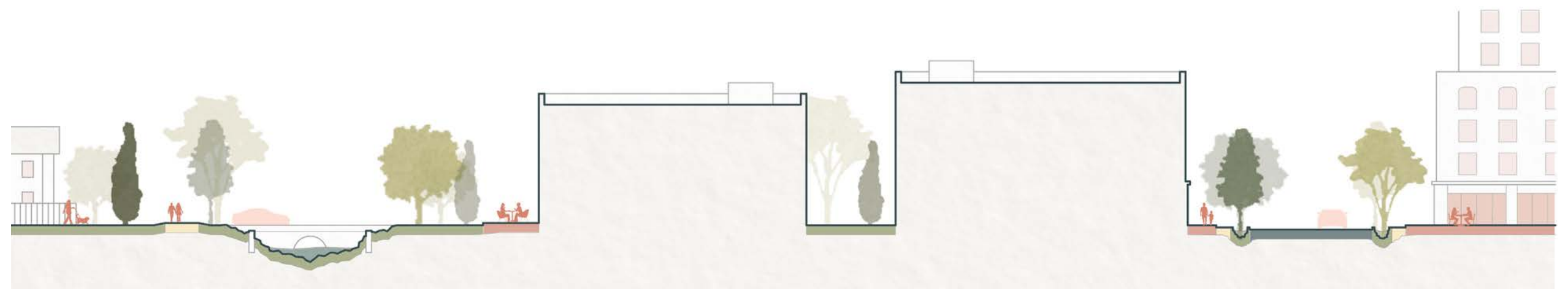
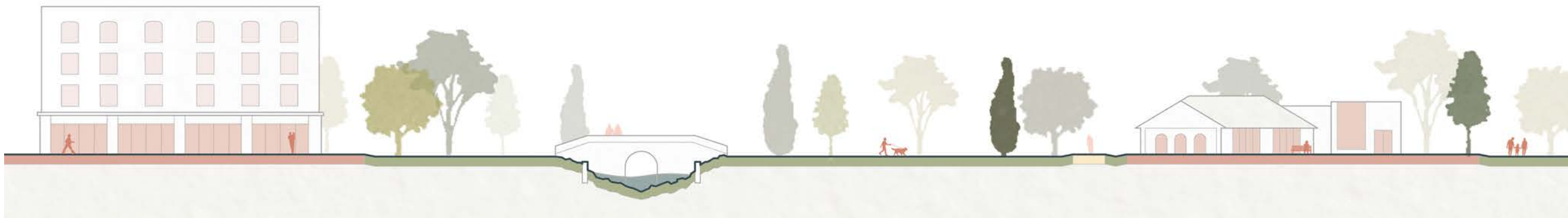
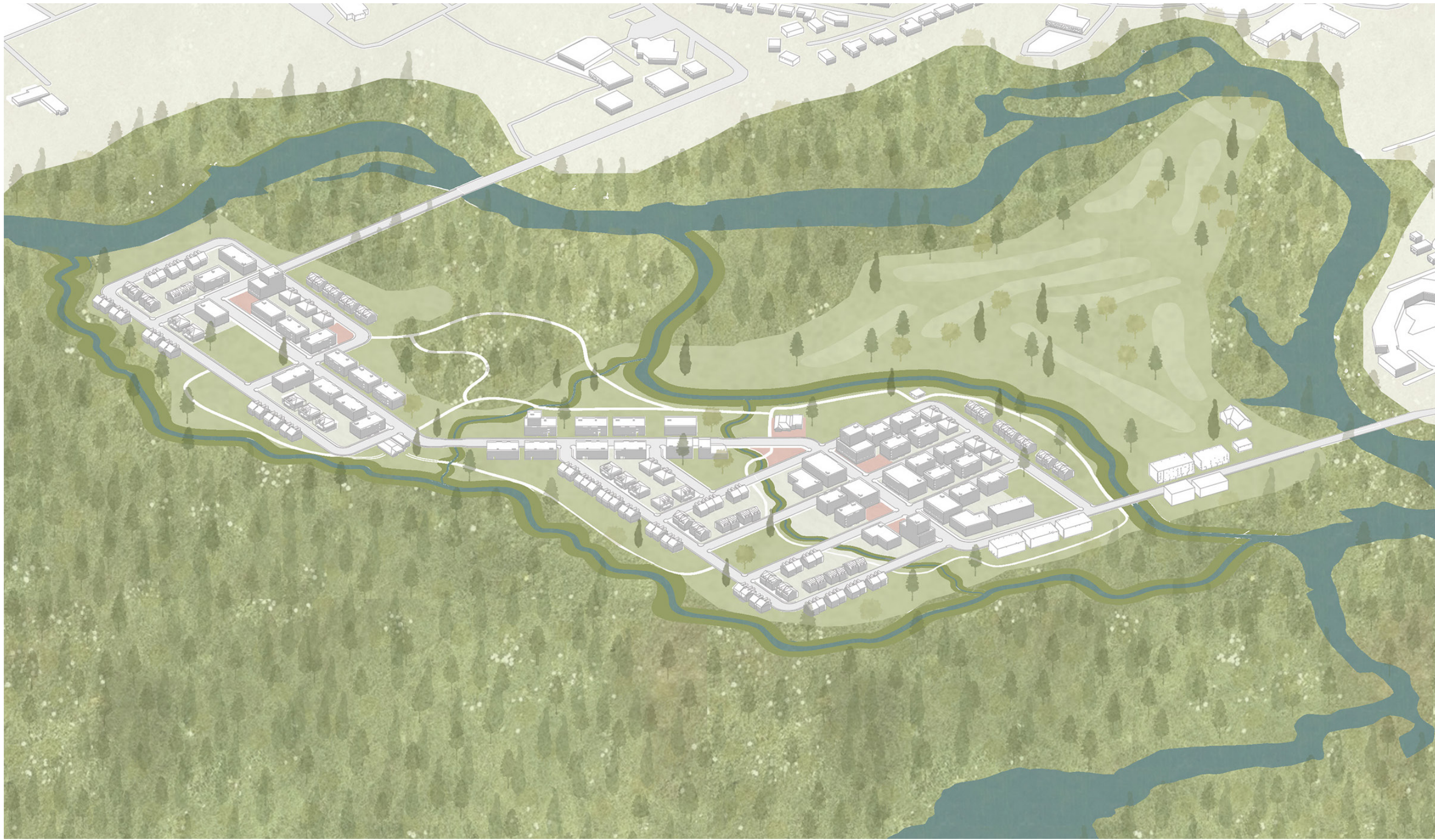
Developed Areas:
 Total Hectares Developed = 12.3
 Number of Housing Units = 1195
 Number of Units / Hectare = 40.4

Undeveloped Areas:
 Hectares Municipal Parks = 2.9
 Hectares Wooded Area = 5.2
 Hectares Water Management Area = 12.3



The **Brookside West** project began with a proposal to combine a central traditional main street with a “sponge city” design to respect the existing town fabric while preserving rich ecosystems and managing storm water on site. Jessica So’s early studies paid careful attention to the vegetation, infrastructure, and historical housing fabric of Perth. The final design creates path and bioswale networks and clusters of developments, maintaining significant wetlands and woodlands.

Le projet **Brookside West** a débuté avec une proposition visant à combiner une rue principale traditionnelle centrale avec une conception de « ville éponge » afin de respecter la fabrique urbaine existante tout en préservant les riches écosystèmes et en gérant les eaux pluviales sur place. Les premières études de Jessica So ont porté une attention particulière à la végétation, aux infrastructures et au développement résidentiel historique de Perth. La conception finale créer de réseaux de sentiers et de rigoles biologiques et de groupes de développements, préservant d’importantes zones humides et boisées.



LOGAN THURMAN
Matheson Marsh



“Integrating a vast pedestrian and cycling network with permeable surfaces and elevated boardwalks, preserving the wetland environment for generations”



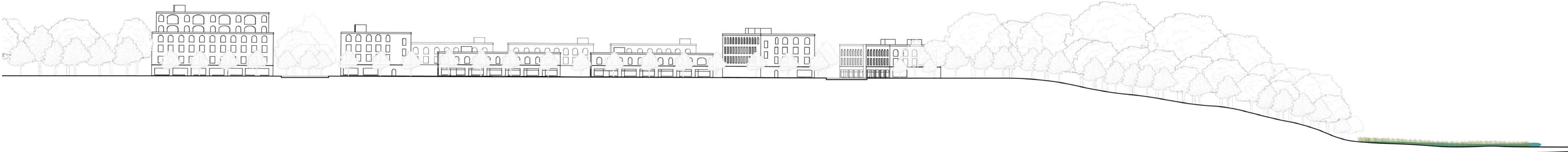
Developed Areas:
 Total Hectares Developed = 21
 Number of Housing Units = 891
 Number of Units / Hectare = 42.4

Undeveloped Areas:
 Hectares Municipal Parks = 7.35
 Hectares Wooded Area = 22
 Hectares Water Management Area = 73.65



For the **Matheson Marsh** project, Logan Thurman aligned denser development with the north and south areas near bridges. A community centre near the Tay River is connected to a plaza, bioretention pond, and an extensive network of trails and boardwalks. The design was inspired by the Matheson House in Perth; Clayton Community Centre in British Columbia; and Park 20/20 designed by William McDonough.

Pour le projet **Matheson Marsh**, Logan Thurman a aligné un développement plus dense sur les zones nord et sud à proximité des ponts. Un centre communautaire près de la rivière Tay est relié à une place publique, un étang de biorétention et un vaste réseau de sentiers et de promenades. Le design a été inspiré par la Matheson House de Perth ; le Centre communautaire Clayton en Colombie-Britannique; et Park 20/20 conçu par William McDonough.



GLENN ZHANG

Perth Development



- 1 + 2 family
- attached housing
- mid/high-rise multi-use
- low-rise mixed-use
- commercial
- industrial
- transportation
- public facilities
- commercial
- open space
- parking

“Perth projects about 10500 residents by 2038, up from 6500 in 2021, and hopes to attract young families”



Developed Areas:
 Total Hectares Developed = 26.2
 Number of Housing Units = 1023
 Number of Units / Hectare = 29

Undeveloped Areas:
 Hectares Municipal Parks = 3.1
 Hectares Wooded Area = 51.6
 Hectares Water Management Area = 3.4

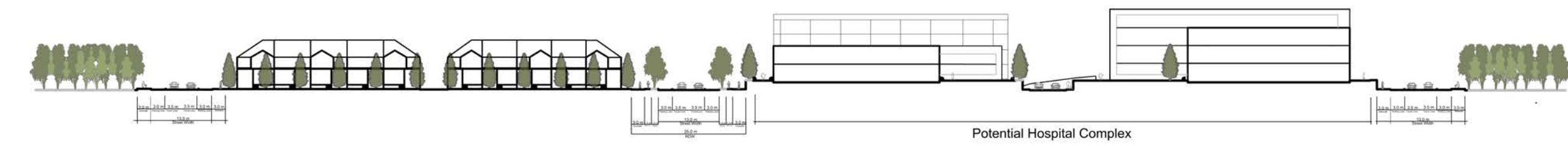
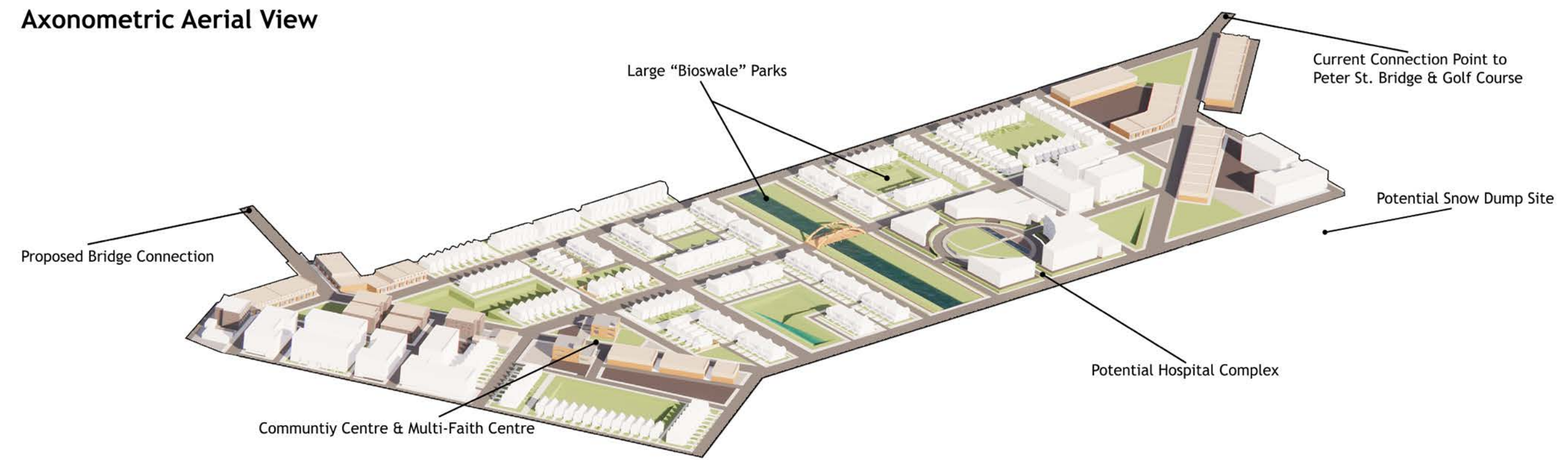


Glenn Zhang’s **Perth Development** centers on a large bioswale park. Residential blocks also back on smaller parks that act as water retention areas. Per the student-developed guidelines, this project includes a multifaith worship centre and a community centre, also proposing four buildings surrounding a circular courtyard that could be developed as a new hospital complex.

Le projet **Perth Development** de Glenn Zhang est centré sur un grand parc d’étang de biorétention. Les immeubles résidentiels s’appuient également sur des parcs plus petits qui servent de zones de rétention d’eau. Conformément aux lignes directrices élaborées par les étudiants, ce projet comprend un centre multiculturel et un centre communautaire, proposant également quatre bâtiments entourant une cour circulaire qui pourraient être développés comme un nouveau complexe hospitalier.



Axometric Aerial View



Potential Hospital Complex





Student Reflections

“I propose this idea, almost as a rethinking of how we choose to design spaces - especially in relation to future climate disasters and deep historical context. By learning to coexist with these complex issues the hope is that these pathways will evolve over time, transforming Annex Grove and Perth at large from what will possibly become groups of redundant, unworkable, structures into a dynamic livable system.” - Julianna Avramidis

“Working through the particulars of this site and the surrounding context of Perth has informed and altered design choices that were made along the way. How water flows throughout the site was a very vital component of the design and a major site condition that was, at times, challenging to navigate. Merging functional infrastructure to manage water with thoughtful design at the scale of the human was a major component.” - Celia Boyd

“In reflecting on my project, one of the most challenging aspects was imagining and designing the connectivity within the site. Ensuring seamless access and flow, both within the site and from external points, required careful consideration of pathways, transportation options, and the integration of different areas. While I focused on walkability and public transport access, refining the details of how these connections will feel and function on a day-to-day basis was complex.” - Callum Browning

“As I consider this project, I see opportunities to further the integration of bioswales, especially in terms of recognizing how well they function in cold climates and how they may continue to be useful throughout the year. My dedication to designing for all age groups and developing environments that achieve a balance between ecological purity and lively community engagement has been reinforced by this project.” - Sarah Clavijo-Franco

“Throughout this process, I have realized the importance of thoughtful design interventions that not only meet the functional needs of the community but also foster connections to the landscape. Looking ahead, I am eager to deepen my understanding of how these interventions can continue to evolve, shaping spaces that adapt to both current and future needs of Perth.” - Shannelle DeCroos

“... I found designing the retreat the most enjoyable, as it is such an engaging and interactive program that really plays into the unique natural features of the site. Overall, I aimed to recognize and utilize already established features of the site, such as how I maintained the existing walking paths of the golf course to become integrated as walking trails in the new site design. I would love to continue to explore and brainstorm different ways to honor the site’s history through subtle references.” - Victoria Guile

“This project helped me think more about how to balance nature and urban development. Designing the Perth Trail was challenging because I wanted to create a space that feels connected to nature but is also practical and easy for everyone to use. I realized I need to learn more about landscaping for all seasons and using sustainable materials to make pathways that are accessible year-round.” - Salma Ibrahim

“... this proposal focuses on creating a vibrant and adaptable community. It respects the unique character of Perth, supports demographic diversity, and fosters economic growth. With its emphasis on sustainable practices, including buffer zones, bioretention strategies, and the careful preservation of natural habitats, the project is not just a housing solution but a long-term investment in the town’s social and environmental future.” - Vanessa Lei

“The site would be able to host around 3500 people. It also allows more flexibility for retail opportunities and offers solutions for the survival of the golf course. All of this was achieved with similar repartition in total land for private development to public ones.” - Dominic Massé

“Imagining how to integrate the wetlands while maintaining their untouched integrity required careful thought and creative solutions. I would like to delve deeper into sustainable design practices, particularly in creating functional yet sensitive interventions in natural landscapes. One area I’d like to explore further is the relationship between the built environment and the community’s interaction with natural features.” - Emilyn Monzon

“... I would like to explore strategies for better connecting recreational spaces like golf courses to walkable, mixed-use environments. Understanding how to integrate such areas seamlessly into the broader urban fabric—while maintaining their character and ecological value—is an area I want to develop further. I am particularly interested in exploring how shared pathways, adaptive landscaping, and public amenities can enhance the usability and inclusivity of these spaces.” - Muskan Sharma

“Over the past few months ... I was able to mobilize my own interests and priorities as they align with Perth’s goals for sustainable and resilient development. ... This project was an amazing opportunity to work outside of conventional planning practices and motivators in order to develop an inventive neighbourhood of the future, grounded in the heritage and ecological values of the past and present.” - Jessica So

“Although I touched upon flood control and wetland protection frequently throughout my project, I wouldn’t mind learning more about the region’s 100-year flood plain or the surrounding rivers’ course changes so that I could perfect my bioswale network to be truly realistic. There are definitely opportunities on the western part of the site to be designed in more detail, which includes the school, multi-faith centre, and cottage court housing.” - Logan Thurman

“This project has reinforced my passion for designing spaces that prioritize inclusivity, sustainability, and community while also highlighting areas where I can grow as a designer. Moving forward, I am committed to refining these skills and pursuing innovative approaches to urban design, with the hope of creating environments that resonate with people and the ecosystems they inhabit.” - Maddy van Ryswyk

“In the end, I think that the Perth Development presents an interesting avenue for us as a class and as individuals to reflect on urban developments that interact with the daily lives of areas outside cities, in the sense that so far, many projects have been focused on dense city areas that present very obvious avenues for change, while this one may have challenged a few ideas that were held firm before. “ - Glenn Zhang





ARCS 3304/ Urbanism on the Periphery

THIS IS AN IN-PERSON COURSE.

Attendance during class sessions is mandatory.

Fall 2024, Mondays & Thursdays - 12:05 to 3:55 pm – AA 510

1.0 GENERAL INFORMATION

Assoc. Prof. Catherine Bonier, catherine.bonier@carleton.ca

Office Hours: Mondays 10:30 to 11:30 (or by appointment) – AA 412



Planning Rationale – Caivan and WSP, 14 April 2022 – “Draft Plan of Subdivision”

Calendar Description: ARCS 3304 Urbanism Studio 3 [1.0 credit] Urbanization, sprawl, growth models, land consumption, containment strategies (smart growth, greenbelts, growth boundaries), edge cities, the Just City, Ecological Urbanism, and informal suburbanization in developed and developing countries. Through design, students explore the impact of practices, pressures, processes and cultural preferences on the expanding city. Includes Experiential Learning Activity

Prerequisite(s): ARCS 2303 and ARCS 2304 and third-year standing in B.A.S. Urbanism major or permission of the School.

Studio Description

This course will focus on the impacts of remote work and the shift of urban populations to Canadian towns and villages. Students will design phased mixed-use developments with an eye to preserving wetland ecologies and local culture. Final design proposals will align to ethical design guidelines – which will be determined by the group through sited research.

Course Objectives and Learning Outcomes

Upon completing this course students should be able:

- To conduct intelligent, creative design research within a specific site, working both in groups and independently.
- To generate a variety of clear investigations and designs, using digital, manual, and hybrid techniques, testing competing ideas, systems, relationships, and possible uses and densities.
- To take an informed position and to clearly explain research and design using written, visual, and verbal means.
- To develop final phased design schemes that demonstrate clear logic and alignment to stated ethical guidelines.

2.0 METHODOLOGIES, COURSE MATERIAL, TEXT

- At the start, this course will require intensive review of existing documentation for the Caivan planned development for Perth, Ontario. Students will visit the town for site study and conversations with stakeholders. (See list below of relevant planning documents and statements.)
- The class will determine Design Guidelines within three areas: Ecology, Materiality, & Sustainability; Infrastructure, Massing, & Use; People, Relationships, & Communities.
- Students will design phased plans for the Western Annex Lands, meeting class guidelines for development.
- This class requires students to work independently to improve their digital and technical visualization abilities, consulting online sources and tutorials as needed and always working with a sketchbook and hybrid techniques.**
- Use the free app Zotero to generate your footnotes and bibliography. <https://www.zotero.org/>
- Use Chicago 17th edition full note style notes and bibliography: https://www.chicagomanualofstyle.org/tools_citationguide/citation-guide-1.html

3.0 ASSIGNMENTS, SCHEDULE, & ASSESSMENT

Deliverables and grading criteria will be further articulated in Assignment Briefs.

COURSE ASSIGNMENTS	Date	Percentage
1.1 Team Research (work in progress)	09.19	05%
1.2 Individual Research & Sketchbook (WIP)	09.26	05%
2.1 Individual Research Narrative	10.03	10%
2.2 Team Research Narrative	10.10	10%
3.1 Interim Review	10.17	15%
3.2 Interim Portfolio	10.31	05%
4.1 Team Workshop & Review	11.21	10%
4.2 Individual Workshop & Review	11.28	10%
5.1 Final Review	12.11	15%
5.2 Individual Final Portfolio	12.21	05%
Attendance – two 4-hour class sessions weekly		10%

EVALUATION CRITERIA

- Creativity:** reflecting the student’s unique perspective and imagination
- Clarity:** thoughtfulness, precision, rigor, and legibility
- Craft:** knowledge and application of analog and digital techniques, as well as research, writing, and presentation
- Completeness:** ability to produce high-quality work meeting assignment criteria before the deadline

You will review the following documents starting in Week 01, working in groups and individually:

Western Annex Lands – 141 Peter Street, Perth Ontario

[Caivan \(Perth GC\) Limited - OPA-01-2023, ZBL-03-2023](#)

Press Releases

- [July 3, 2024 - Initial Merit Hearing Regarding Proposed Subdivision Adjourned, New Dates Set](#)
- [March 1, 2024 - Revised Concept Plan from CAIVAN \(Perth GC\) Ltd.](#)
- [March 1, 2024 - OLT Releases the List of Issues Set to be Reviewed Regarding Proposed Subdivision](#)
 - [Memorandum of Oral Decision](#)
- [February 5, 2024 - Second Case Management Conference Regarding Proposed Subdivision to Take Place on Monday, Feb. 12](#)
- [December 18, 2023 - Media Release: Ontario Land Tribunal Case Dates Sets Regarding Proposed Subdivision](#)
- [November 15, 2023 - Media Release: Council Provides Direction to Town Solicitor Regarding Ontario Land Tribunal Appeal](#)
- [November 10, 2023 - Media Release: Special Committee of the Whole Meeting Scheduled for Tuesday, November 14](#)
- [October 25, 2023 - Media Release: Case Management Conference Set Regarding Proposed Subdivision](#)
- [September 22, 2023 - Media Release: Notice of Appeal Received by the Town of Perth Regarding Proposed Subdivision](#)
- [August 10, 2023 - Public Meeting Recording](#)
- [August 10, 2023 - Presentation - Caivan Proposed Official Plan Amendment and Zoning By-Law Amendment](#)
- [July 7, 2023 - Notice of Public Meeting, Official Plan Amendment and Zoning By-law Amendment Applications](#)
- [May 8, 2023 - Notice of Complete Application, Official Plan Amendment and Zoning By-law Amendment Applications](#)

Witness Statements

- Town of Perth/Lanark County
 - [Anthony Hommik, MCIP, RPP \(Jp2g Consultants Inc.\)](#)
 - [Eric Lalonde, MCIP, RPP, Senior Planner \(RVCA\)](#)
 - [Jennifer Luong, P.Eng. \(Novatech\)](#)
 - [Joanna Bowes, MCIP, RPP, Director of Development Services/Town Planner \(Town of Perth\)](#)
 - [Mark Bissett, P.Eng. \(Novatech\)](#)
 - [Rob West, Senior Ecologist \(Oakridge Environmental Limited\)](#)
 - [Trevor Choffe, Director of Protective Services/Fire Chief \(Town of Perth\)](#)
 - [Tyler Bauman, B.Eng., P.Eng., Water Resources Engineer \(RVCA\)](#)
- CAIVAN
 - [Adam Fobert, P.Eng. \(David Schaeffer Engineering Ltd.\)](#)
 - [Alex Meacoe, P.Eng. \(GEMTEC\)](#)
 - [Andrius Paznekas, M.Sc., P.Geo. \(GEMTEC\)](#)
 - [Anthony Francis, Senior Ecologist \(Kilgour & Associates Ltd.\)](#)
 - [Christopher Gordon, P. Eng. \(CGH Transportation Inc.\)](#)
 - [Daryl Keleher, BA, BURPL, MCIP, RPP \(Keleher Planning & Economic Consulting Inc.\)](#)
 - [Elizabeth Howson, B.E.S., MCIP, RPP \(Macaulay Shiomi Howson Ltd.\)](#)
 - [Jean-Francois Sabourin, M.Eng., P.Eng. \(JFSA Canada Inc.\)](#)
 - [Jocelyn Chandler, RPP \(JFSA Canada Inc.\)](#)

Application Documents

- [Cover Letter](#)
- [First Submission Comment Response Matrix](#)
- [Plan of Subdivision Grid](#)
- [Plan of Subdivision Page 1](#)
- [Plan of Subdivision Page 2](#)
- [Plan of Subdivision Page 3](#)
- [OPA Application Form](#)
- [ZBLA Application Form](#)
- Archaeological Assessment
 - [Stage 2 Report](#)
 - [Stage 3 Report](#)
- [Environmental Impact Assessment](#)
- [Environmental Site Assessment](#)
- [Fiscal Impact Analysis](#)
- [Fluvial Geomorphology and Erosion Hazard Assessment](#)
- [Functional Servicing Report](#)
- [Geotechnical Investigation](#)
- [Heritage Impact Assessment](#)
- [Hydrogeological Investigation](#)
- [Hydrologic and Hydraulic Conditions Report](#)
- [Integrated Hydrological Impact Assessment](#)
- Park Fit Plans
 - [0.22 ha](#)
 - [0.92 ha](#)
 - [1.11 ha](#)
- [Planning Rationale](#)
- [Slope Stability Analysis](#)
- Survey Plans
 - [Survey 27R-8644](#)
 - [Survey 27R10185](#)
- Transportation
 - [Peter Street Bridge Report](#)
 - [Perth Golf Course Access Options](#)
 - [GRDD Red Line](#)
 - [Transportation Impact Study](#)