

Tecumseh Hamlet Secondary Plan Area Infrastructure Improvements

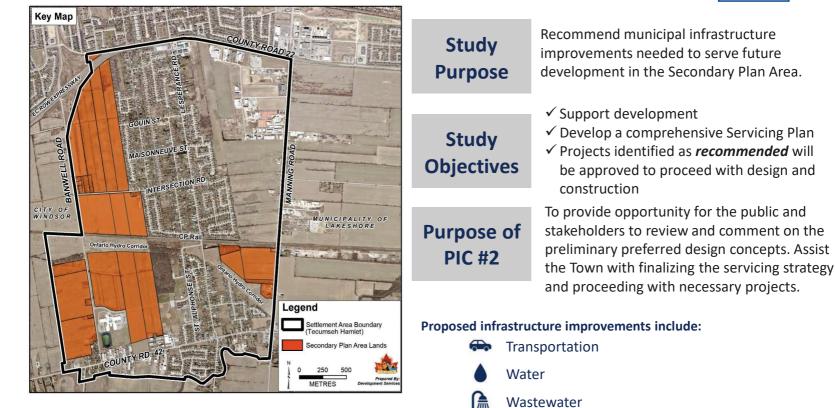
Municipal Class Environmental Assessment and Functional Design

Public Information Centre #2 November 27, 2023





DILLON



Stormwater Management

Municipal Class EA Process

The **Municipal Class Environmental Assessment (MCEA)** is an approved planning and design process used to ensure that municipal infrastructure projects meet the requirements of the Ontario Environmental Assessment Act.

The Schedule C process is being followed. Phases 1 and 2 of the MCEA were covered by the previously completed Master Plans. This study will address Phases 3 and 4.

Design Concept Alternatives were presented at PIC # 1 on April 13, 2023.

Pre-2023		Summer/Fall 2023	Winter 2024	Ongoing
PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5
Was covered by previously completed Master Plans: "Problem/Opportunity", provided the need and justification for infrastructure improvements	Was covered by previously completed Master Plans: "Alternative Solutions", evaluated and identified preferred solutions.	"Alternative Design Concepts", evaluate and identify preferred design concepts. WE ARE HERE	"Environmental Study Report" , preparation of report.	"Implementation", detailed design and tendering, and proceed to construction.

To avoid or minimize adverse impacts, Phase 3 involves:

- The development and evaluation of Design Concepts to determine the preferred solution;
- The preparation of a detail inventory of the potentially affected environment and impact assessment of the Design Concepts;
- The selection of the preliminary preferred concepts; and
- Public and agency consultation and the selection of the preferred concept.

Problem / Opportunity Statement



Municipal infrastructure including road, water, wastewater and stormwater infrastructure, are required to service new development in the Tecumseh Hamlet Secondary Plan Area.

The facilities will be planned and designed to mitigate impacts on the natural heritage environment, water resources, cultural resources and existing municipal infrastructure.

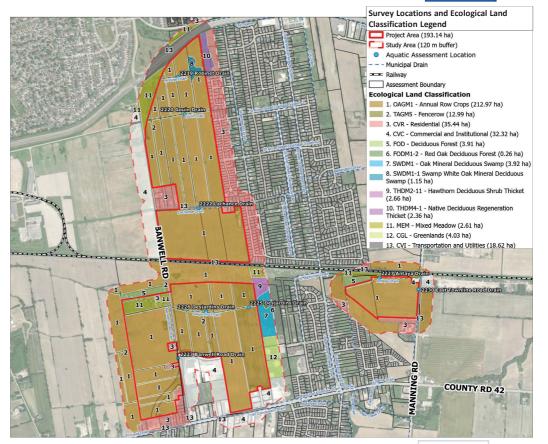
Background Studies	Previously Completed Master Plans:		
 Site Investigations Completed Stage 1 Archaeological Assessment Cultural Heritage Assessment MTO Landfill - Methane Gas Investigation Environmental Condition Assessment 	 Transportation Town of Tecumseh Transportation Master Plan (2017) City of Windsor Banwell Road Environmental Assessment (2016) County Road 42 and 43 Environmental Assessment (2009) 	Water and Wastewater Wastewater Master Plan (2019)	Stormwater • Upper Litter River Watershed Drainage and Stormwater Management (SWM) Master Plan (2023) • Tecumseh Drainage
 Engineering Analysis Transportation Impact Study Update Stormwater Management Analysis Sanitary System Capacity Assessment 	• County Road 22/19 Environmental Assessment (2009)		Master Plan (2019)



A CONTRACTOR OF CONTRACTOR

Natural Environment

- A total of 7 natural communities and 5 cultural communities exist within the Study Area.
- The majority of the Study Area consists of developed cultural communities, most of which are active agricultural lands with annual row crops.
- Based on the existing conditions documented, a total of 15 Species at Risk (SAR) have the potential to occur in the general vicinity of the Study Area including bats, snakes, and vegetation.
- 19 species were incidentally observed within the Study Area during the field surveys undertaken in March 2023, all considered Secure (S5) or Apparently Secure (S4) in the province.





Cultural Environment

Stage 1 Archaeological Assessment

(Fisher Archaeological Consulting, April 2013)

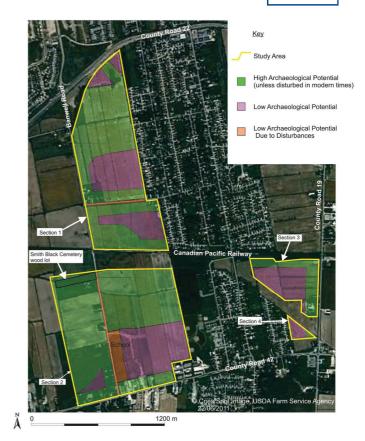
- High potential for archaeological significant resources, including historic Aboriginal, refugee slave Euro-Canadian settlements and the presence of the Smith Black Cemetery on Banwell Road.
- Stage 2 Archaeological Assessment(s) (AA) are required prior to the construction and the development of infrastructure on lands noted within the Stage 1 AA Report.

Cultural Heritage Assessment (ASI, August 2023):

Built Heritage Resources (BHR) and Cultural Heritage Landscape (CHL) Assessment

A total of 1 known CHL, 3 potential CHLs, 1 potential BHR, and 1 commemorative feature (CF) were identified within the study area as part of the August 2023 study.

- The known CHL is designated under Part IV of The Ontario Heritage Act.
- The study provides a detailed analysis of the potential impacts and proposed mitigation measures for protecting the identified CHLs, BHR, and CF.







Socio-Economic Environment

• This Servicing Plan is being done in conjunction with the **Town's Tecumseh Hamlet Secondary Plan**, Official Plan Amendment.

Existing Land Uses, Tecumseh Hamlet

- The Hamlet's existing population is about 5,300
- Land uses consist primarily of single detached residences and some commercial uses, community facilities and parks

Provincial Policy Statement (PPS)

- "Settlement Areas" shall be the focus of growth and development
- Full municipal services are the preferred form of servicing
- Municipalities shall consider the wise use and management of natural heritage, water and cultural heritage resources when planning for infrastructure

County of Essex and

Town of Tecumseh Official Plans

- Both plans direct all non-agricultural development to "Settlement Areas", including the Tecumseh Hamlet, designated for "Future Development"
- The Town's plan projects a population of 32,050, an increase of 8,750 people by 2045
- The County's Official Plan Update projects that the Town's population will be between 35,300 and 42,300 by 2051, significantly higher than previous projections
- Full municipal services are required in "Settlement Areas"

Tecumseh Hamlet Secondary Plan

- The Secondary Plan will address the integration of existing and new development, land use distribution, and related infrastructure requirements.
- The plan projects that 1,500 residential units will be built in the Hamlet over the next 10 years, potentially adding more than 3,500 people to this area.





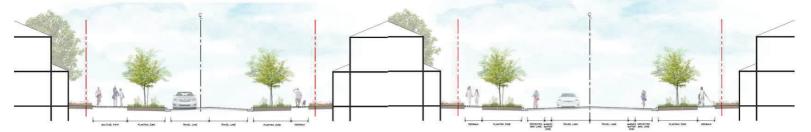


Transportation

To support the internal road network, accommodate growth and promote connectivity, three Urban Collectors are required north of the CPR Rail Corridor at:

- Gouin Street;
- Maisonneuve Street; and
- Intersection Road.
- ✓ Provide 23.0m (75.5ft) right-of-way for future Urban Collector Roads.
- \checkmark Improve existing roadways and provide linkage to Lesperance Road.
- ✓ Introduce Active Transportation Corridors (pathways for bike and pedestrian traffic).

Alternative 1: Includes Off-Street Cycling Facilities (Multi-Use Path) and On-street Parking

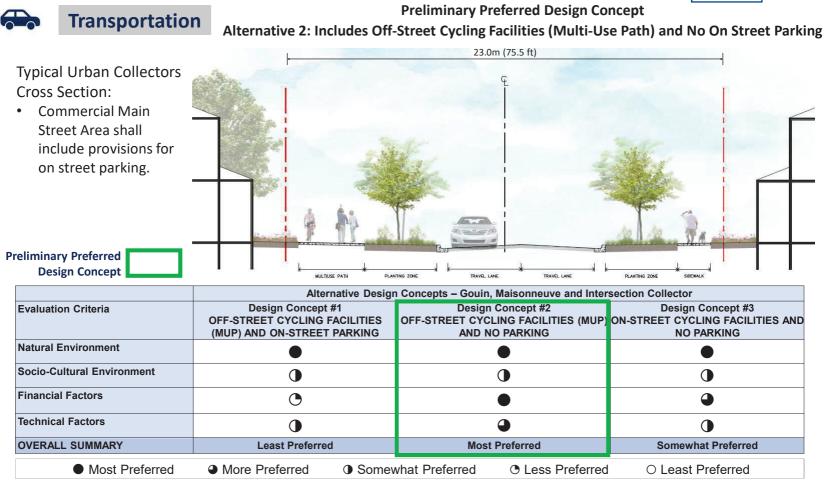


Alternative 2: Includes Off-Street Cycling Facilities (Multi-Use Path) and No Parking

Alternative 3: Includes On-Street Cycling Facilities and No Parking





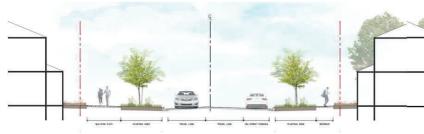




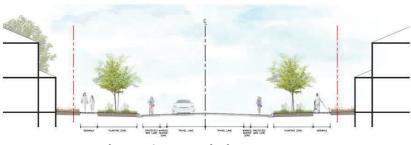


Transportation - Shields Street (Collector)

To support the internal road network, a 23.0m (75.5ft) wide Urban Collector is required south of the CPR Rail Corridor at Shields Street.



Alternative 1: Includes Off-Street Cycling Facilities (Multi-Use Path) and On-street Parking



Alternative 3: Includes On-Street Cycling Facilities and No Parking

Alternative 2: Includes Off-Street Cycling Facilities (Multi-Use Path) and No Parking



Alternative 4: Includes Off-Street Cycling Facilities (Multi-Use Path), No Parking, and Bio Swale Median





Transportation - Shields Street (Collector)

- ✓ Roadway will be integrated into the enhanced McAuliffe Regional Park Improvements.
- ✓ Designated Pedestrian Crossover signals will be used.
- Raised planters and wayfinding signage will be used to assist movement of pedestrians and cyclists.
- ✓ Refer to the Secondary Plan PIC #3 for more details.

Preliminary Preferred Design Concept

Preliminary Preferred Design Concept Alternative 4: Includes Off-Street Cycling Facilities (Multi-Use Path), No Parking, and Bio Swale Median



	Alternative Design Concepts – Shields Street Collector			
Evaluation Criteria	Design Concept #1	Design Concept #2	Design Concept #3	Design Concept #4
	Off-Street Cycling Facilities	Off-Street Cycling Facilities and	On-Street Cycling	Off-Street Cycling Facilities, No
	and On-street Parking	No Parking	Facilities and No Parking	Parking, and Bio Swale Median
Natural Environment	•	•	•	
Socio-Cultural Environment	•	•	•	•
Financial Factors	•	•	•	0
Technical Factors	•	•	•	٩
OVERALL SUMMARY	Least Preferred	More Preferred	Somewhat Preferred	Most Preferred
Most Preferred	More Preferred	Somewhat Preferred	• Less Preferred	O Least Preferred



Water Servicing

- ✓ Provide water service for future development area.
- ✓ New interconnection with the City of Windsor's Trunk watermain on Banwell Road.
- ✓ Improved water circulation and servicing capabilities for existing and future areas to satisfy the Water and Wastewater Master Plan.

	 Most Preferred
	More Preferred
	Somewhat Preferred
Preliminary Preferred	• Less Preferred
Design Concept	○ Least Preferred

	Alternative Design Concepts		
Evaluation Criteria	Design Concept #1 East alignment (Odessa/CR42)	Design Concept #2 Center Alignment (Odessa/CR42)	Design Concept #3 West Alignment (CR43/CR42)
Natural Environment	O	•	•
Socio-Cultural Environment	•	•	0
Financial Factors	•	•	•
Technical Factors	•	٠	
OVERALL SUMMARY	Less Preferred	Least Preferred	Most Preferred







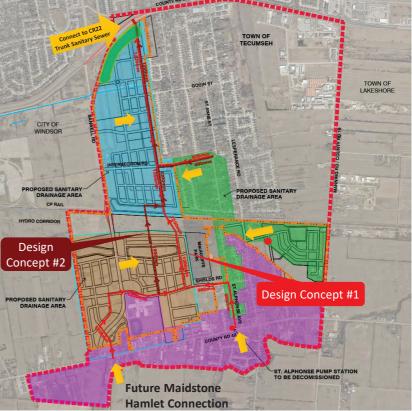
Wastewater Servicing

- $\checkmark~$ Provide wastewater service for future development area.
- ✓ Redistribute wastewater flows to provide relief for the existing developed areas.
- Utilize updated design criteria and population densities that considers impacts of wet weather on the system.



SANITARY PUMP STATION

	Alternative Design Concepts	
Evaluation Criteria	Design Concept #1 Central Alignment	Design Concept #2 West Alignment
Natural Environment	0	0
Socio-Cultural Environment	0	•
Financial Factors	• •	
Technical Factors	•	O
OVERALL SUMMARY	Most Preferred Least Preferred	



Preliminary Preferred Design Concept

Most Preferred

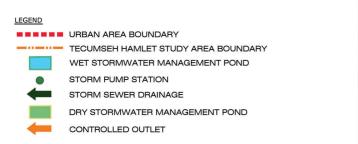
More Preferred



Stormwater Management West Hamlet

In accordance with the Upper Little River Stormwater Management Environmental Assessment, the <u>recommended solution</u> includes implementation of stormwater management facilities that will;

- Provide quality and quantity control of runoff to protect the upper reaches of the Little River drain.
- Require three (3) controlled outlets to existing drains to mitigate downstream impacts.
- ✓ Incorporate flexibility to accommodate Climate Change.
- Accommodate capacity to improve storm sewer systems upstream along existing residentials streets (i.e. Shawnee, Hebert).







Stormwater Management West Hamlet

Wet Pond

- ✓ Provide water quality control <u>and</u> quality control, to mitigate the need for upstream quality control measures which are costly and difficult to maintain to ensure proper effectiveness.
- Can be incorporated into natural spaces and provide natural environment linkages.
- ✓ Meets SWM Regional and provincial guidelines.
- Must consist of features to mitigate waterfowl due to proximity with the Airport.

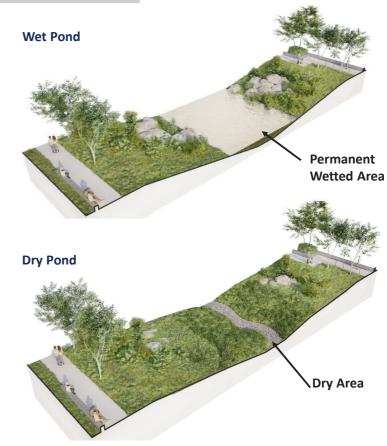
Dry Pond

Gouin Pond is within the Windsor Airport Runway Approach Zone, therefore a Dry Pond is recommended to discourage the presence of waterfowl. Upstream quality control measures shall be accommodated accordingly.

Both dry and wet facilities would have similar footprints and both will include natural features, waterfowl mitigation measures and sediment and erosion control.

> Preliminary Preferred Design Concept



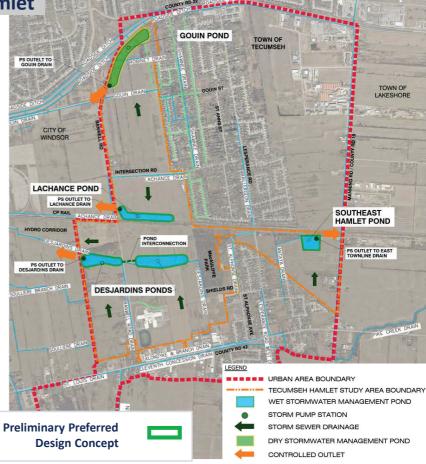




Stormwater Management West Hamlet

Alternative Design Concepts – LaChance and Desjardins Stormwater Management Facility			
Evaluation Criteria	Design Concept #1 Wet Stormwater Management Facility	Design Concept #2 Dry Stormwater Management Facility	
Natural Environment	O	•	
Socio-Cultural Environment	0	0	
Financial Factors	•	O	
Technical Factors	•	•	
OVERALL SUMMARY	Most Preferred	Least Preferred	

Alternative Design Concepts – Gouin Stormwater Management Facility			
Evaluation Criteria	Design Concept #1 Wet Stormwater Management Facility	Design Concept #2 Dry Stormwater Management Facility	
Natural Environment	O	•	
Socio-Cultural Environment	•	•	
Financial Factors	•	•	
Technical Factors	•	•	
OVERALL SUMMARY	Least Preferred	Most Preferred	



Intercept Antava Drain

GEORERANCE P

ROAD

Stormwater Servicing Southeast Hamlet

- ✓ The preferred stormwater management solution is to implement a Stormwater Management Facility that also serves the Antaya Drainage area.
- A wet pond is recommended.
- Incorporate flexibility to accommodate Climate Change.
- One (1) controlled outlet to the existing municipal drain along CR19, East Townline Drain.
- ✓ The area shall outlet to the East Townline Line drain. Under ultimate conditions, the East Townline Drain is planned to be redirected south to the Pike Creek Drain (CR19/CR22 EA).

LEGEND WET STORMWATER MANAGEMENT POND STORM PUMP STATION STORM SEWER DRAINAGE CONTROLLED OUTLET

Preliminary Preferred Design Concept

Most Preferred

Design Concept # 1

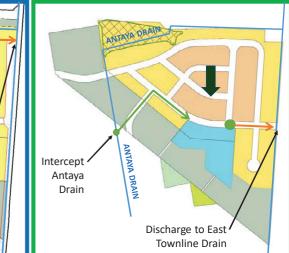
ANTAYA DRAIN

ANTAYA DRAIN

Discharge to East

Townline Drain





to be	Alternative Design Concepts – Southeast Hamlet Stormwater Management Facility			
reek Drain	Evaluation Criteria	Design Concept #1 North SWMF, South of CPR Corridor	Design Concept #2 South SWMF, Partially in Hydro Corridor	
	Natural Environment	0	0	
T POND	Socio-Cultural Environment	Ο		
	Financial Factors	0	O	
	Technical Factors	٩	0	
OVERALL SUMMARY		Less Preferred	More Preferred	
More Preferred O Somewhat Preferred O Less Preferred O Least Preferred				



Potential Impacts and Mitigation

Potential Impact	Proposed Mitigation
Impacts to Surrounding Lands	 Windsor Airport Safety - Design stormwater management ponds to include provisions for waterfowl mitigation and natural features. Existing Road Network – Incorporate Traffic Calming, where warranted, restore disturbed areas. Municipal Servicing –Proposed infrastructure considers needs of the existing servicing areas.
Construction & Maintenance	 Inform property owners about upcoming construction. Use construction best management practices to minimize disruption, such as sediment and erosion control, controlling dust and following noise by-laws. Implement necessary detours and signage. Regular maintenance of ponds and pump stations, regular monitoring of waterfowl and natural features.
Property Impacts	 Avoid property impacts were possible, acquire property or easements, where necessary. Compensation based on independently completed appraisal based on market values. Consultation with effected landowners. Regular updates on the timing of progress on projects.
Archaeological and Cultural Heritage Resources	 Complete Stage 2 archaeological assessments prior to construction, and Stage 3 and 4 assessments, as required. Engage indigenous communities during the planning and construction. Notify appropriate agencies should unexpected resources be recovered during construction. Establishing no-go zones with fencing and issue instructions to construction crews to avoid identified heritage resources. Complete a resource-specific Heritage Impact Assessment (HIA) by a qualified heritage professional.
Natural Environment	 Minimize tree removal and replace any trees removed. Protect existing natural environmental significant areas. Development of mitigation plans to protect terrestrial and aquatic habitat. Prohibit construction during spawning and nesting seasons. Obtain necessary regulatory permits. Recommend necessary setbacks and barriers in the vicinity of the landfill site.

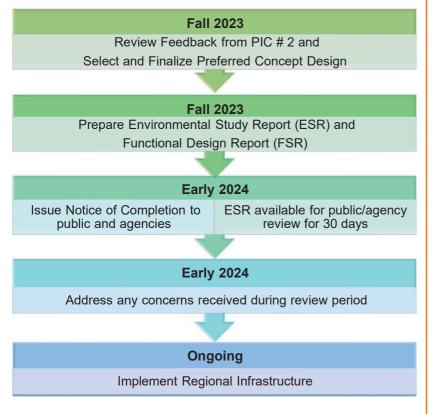


Implementation/		
•		Collector Road Improvements
Projects		 Intersection Road Reconstruction (Lesperance Rd. to Shawnee Rd.) (2024)
		 Intersection Road Reconstruction (Shawnee Rd. to Banwell Rd.)
		Gouin Street Extension
		Maisonneuve Street Extension
	~~	Shields Street Extension and McAuliffe Park Expansion
	Transportation	Shields Drive Interim Safety Improvements
		Arterial Road Improvements (By Others)
		• Banwell/CR22 Interchange Improvements (City of Windsor) (Design 2023/2024)
		County Road 43 Diversion (County of Essex) (2025)
		 County Road 42 Improvements – Ongoing (County of Essex)
		• Banwell Road and County Road 43 Trunk Watermain (City and County) (Underway)
		• West Hamlet Trunk Watermain CR22 to Intersection Road (2024)
	Watermain	• West Hamlet Trunk Watermain Intersection Road to Hydro Corridor (2025)
111 Contraction of the	vvatermann	West Hamlet Trunk Watermain - Hydro Corridor to County Road 43
	0	• West Hamlet Trunk Sanitary Sewer - CR22 to Intersection Road (2024)
	[• West Hamlet Trunk Sanitary Sewer- Intersection Road to Hydro Corridor (2025)
na. 15	Wastewater	West Hamlet Trunk Sanitary Sewer - Hydro Corridor to County Road 42
The Town will continue to work		Intersection Road Sanitary Relief Sewer (2024)
with Developers to implement		• Four (4) Stormwater Management Ponds, Four (4) Pump Stations and outlets
municipal servicing proposed		• Upstream Trunk Storm Sewer Infrastructure.
herein.	Stormwater Management	Municipal Drainage Improvements
	Wanagement	





Next Steps and Timelines



Provide your input!

To provide comments on this project or request further information, please fill out a PIC form, contact one of the project team members listed below or visit the Town's website (www.Tecumseh.ca) for more information

Please provide your comments by January 5, 2024.

Shane McVitty, P.Eng. Development Engineer Laura Herlehy, P.Eng. Project Engineer

Town of Tecumseh 917 Lesperance Road Tecumseh, Ontario, N8N 1W9 Tel: 519-735-2184 ext. 180 Email: <u>smcvitty@tecumseh.ca</u> Dillon Consulting Limited 3200 Deziel Drive Suite 608 Windsor, Ontario, N7M 4V4 Tel: 519-948-4243 ext.3216 Email: <u>lherlehy@dillon.ca</u>

Information collected for this study will be used in accordance with the *Municipal Freedom of Information and Protection of Privacy Act*. With the exception of personal information, all comments will become part of the public record.



About the Study

The Tecumseh Hamlet Settlement Area (see Key Map) is situated south of County Road 22 and is generally delineated by County Road 19/Manning Road to the east, County Road 42 to the south and Banwell Road to the west.

The Tecumseh Hamlet Secondary Plan Area is a composite of primarily large undeveloped lands (see Key Map) that are currently farmed. In addition, there are a number of natural heritage landscapes and existing homes. The scope of work will consider the broader Settlement Area (see Key Map) to carefully integrate key municipal infrastructure elements between the Secondary Plan Area Lands and existing builtup areas of the Hamlet. These key infrastructure elements include the extension of roads, trails, and underground services. A broader focus will ensure a holistic approach to the evolution of the Settlement Area and ensure that the boundary satisfies the requirements of future class EA and Master Plan study.

The Secondary Plan will address the integration of existing and new development, land use distribution, and related infrastructure requirements. It will seek to strengthen mobility and street network connectivity; build an interconnected network of public open space; identify the location and distribution of community facilities; and identify the future development intensity and scope. One of the main goals of the Plan will be to deliver a complete, walkable and diverse community, comprising sustainable neighbourhoods through the provision of a wide variety of land uses and building types, supported and enhanced by quality private development and public spaces and amenities.

Estimated Timeline

(Water & Waste Water from CR22 to CP Rail)

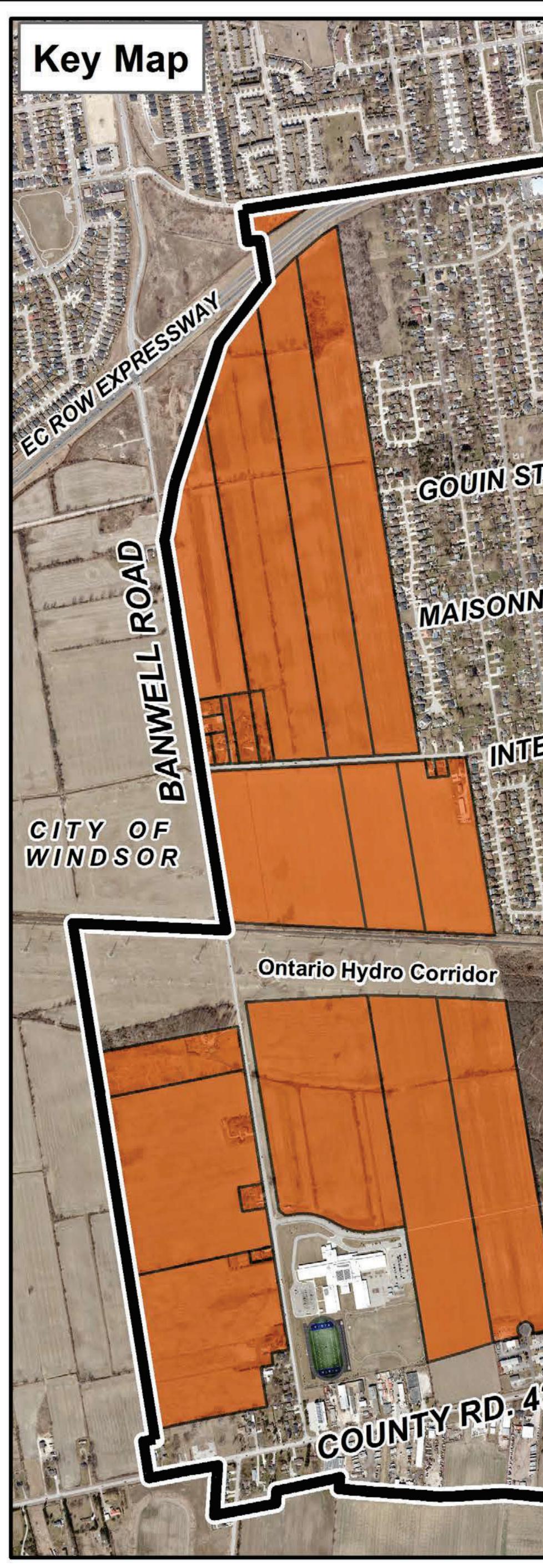
Functional Servicing Study Complete







The Tecumseh Hamlet Secondary Plan

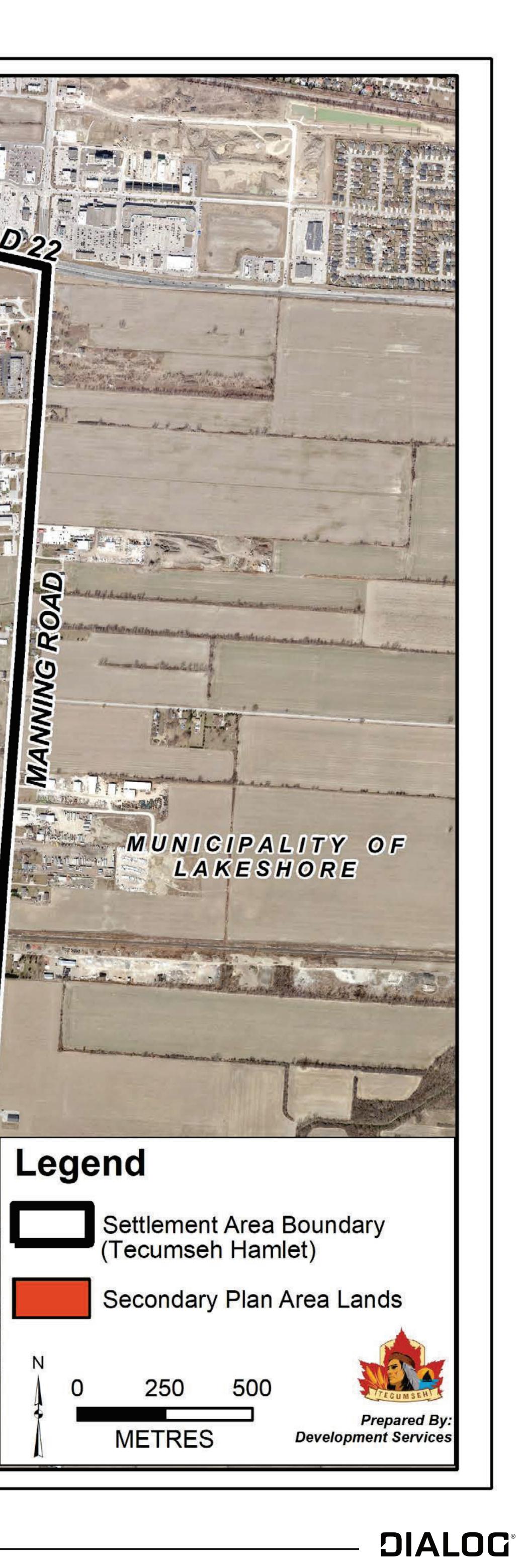


GOUIN ST.

MAISONNEUVE SI

INTERSECTION RD

Orridor

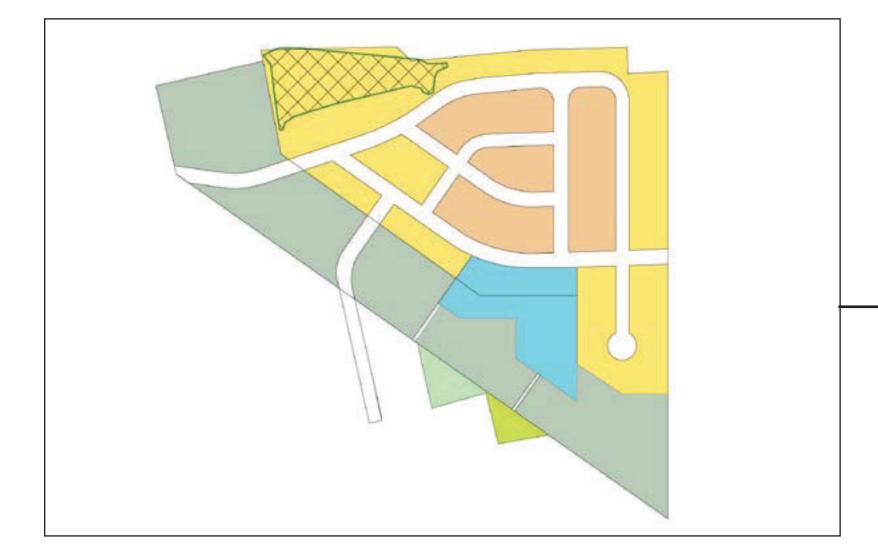


PROPOSED LAND USE PLAN







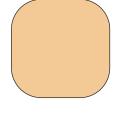






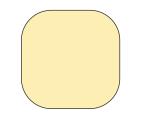
High Density Neighbourhoods

- Up to 6 storeys Apartments, nursing homes, rest homes and retirement homes with opportunities for retail at grade Permitted density over 50 units/ha



Mid Density Neighbourhoods

- Up to 4 storeys Towns, stacked towns, row house, walk ups or small scale apt, mixed use buildings with commercial on the ground floor
- Permitted density 20-50 units/ha



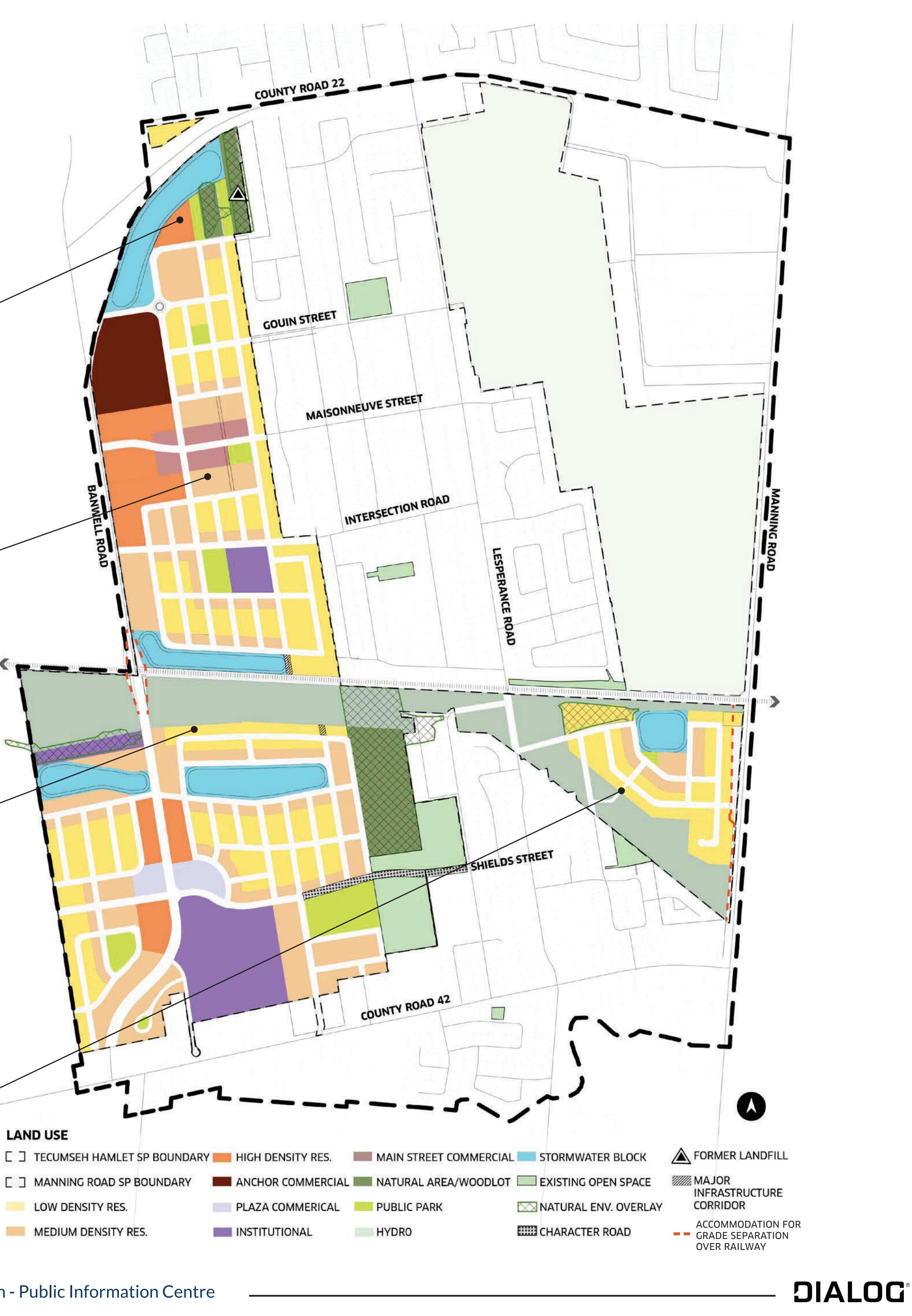
Low Density Neighbourhoods

- Up to 2-2.5 storeys Singles and Semis,
- Duplex Buildings
- Permitted density up to 20 units/ha



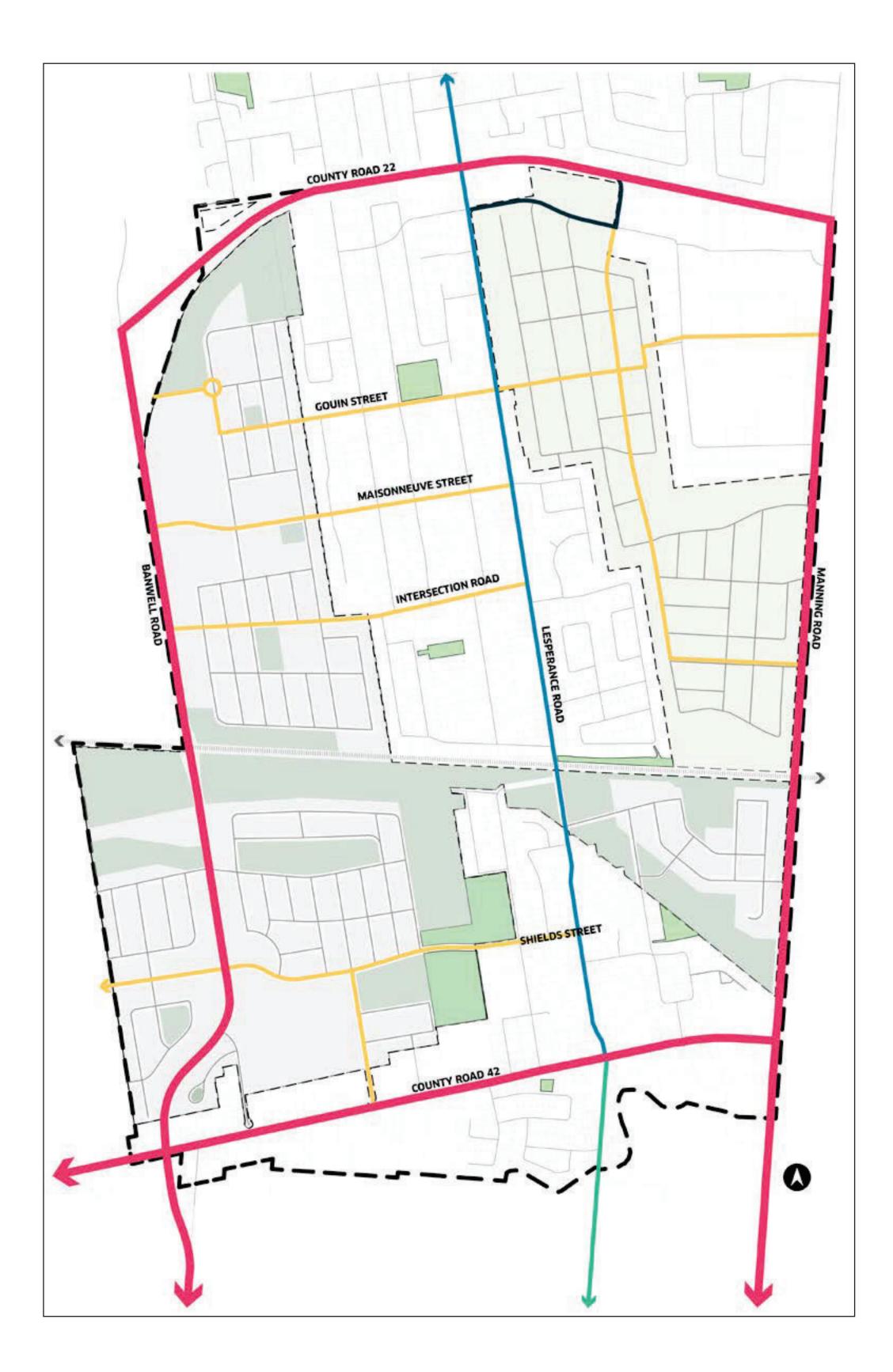
 Acceptable alternative layout, subject to Hydro One approval

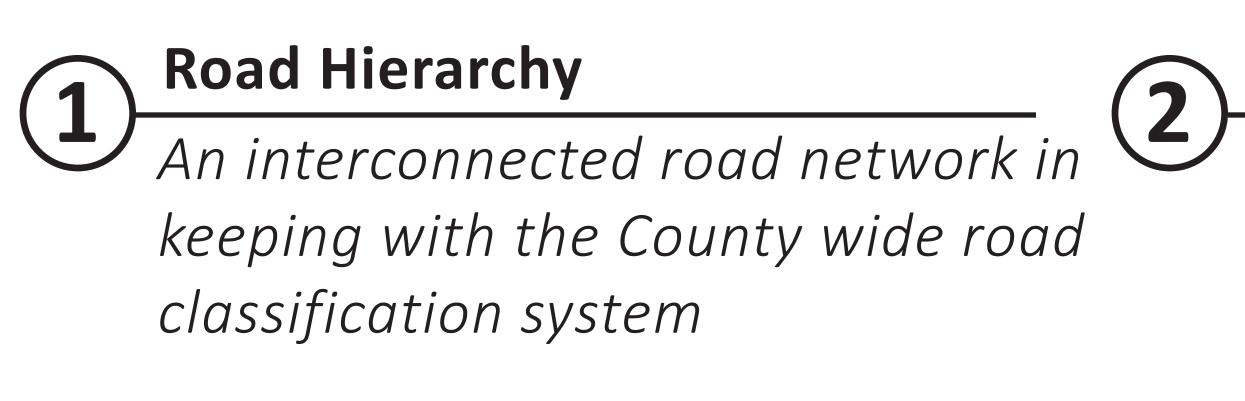
The Tecumseh Hamlet Secondary Plan



MOVEMENT FRAMEWORK

THE TOWN OF ECUMSE





- COUNTY/WINDSOR REGIONAL ROAD
- MINOR ARTERIAL
- COLLECTOR URBAN
- **COLLECTOR RURAL**
- PROPOSED SP ROADS





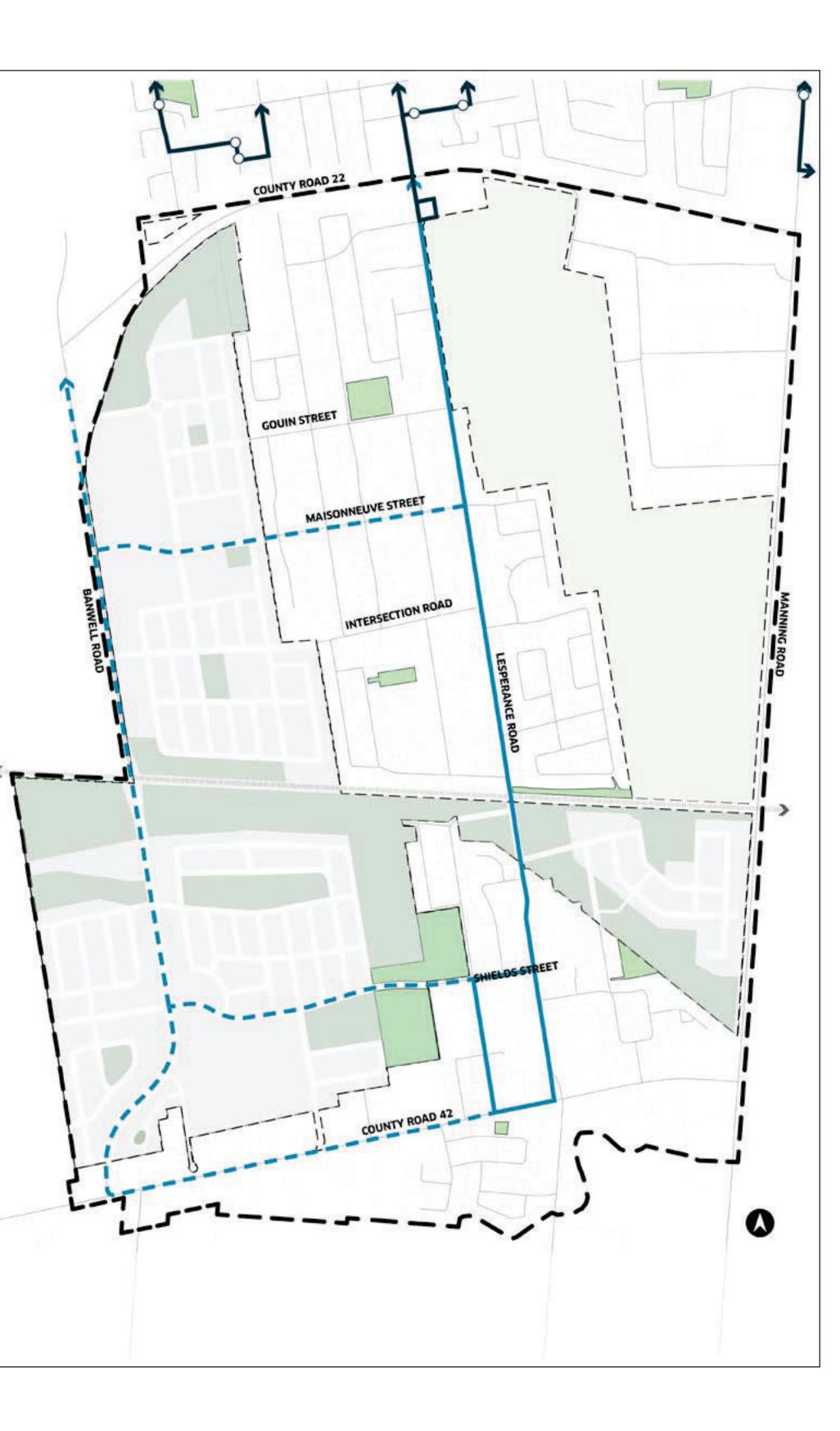
Pedestrian Network

3

An accessible, safe, convenient, and comfortable pedestrian network

SIDEWALKS EXISTING TRAILS PLANNED TRAILS (EXISTING MASTERPLANS) PROPOSED TRAILS MID-BLOCK CONNECTIONS

The Tecumseh Hamlet Secondary Plan







Opportunity to invest in public transit to support the increased density

PLANNED ROUTES POTENTIAL FUTURE EXPANSION



November 2023

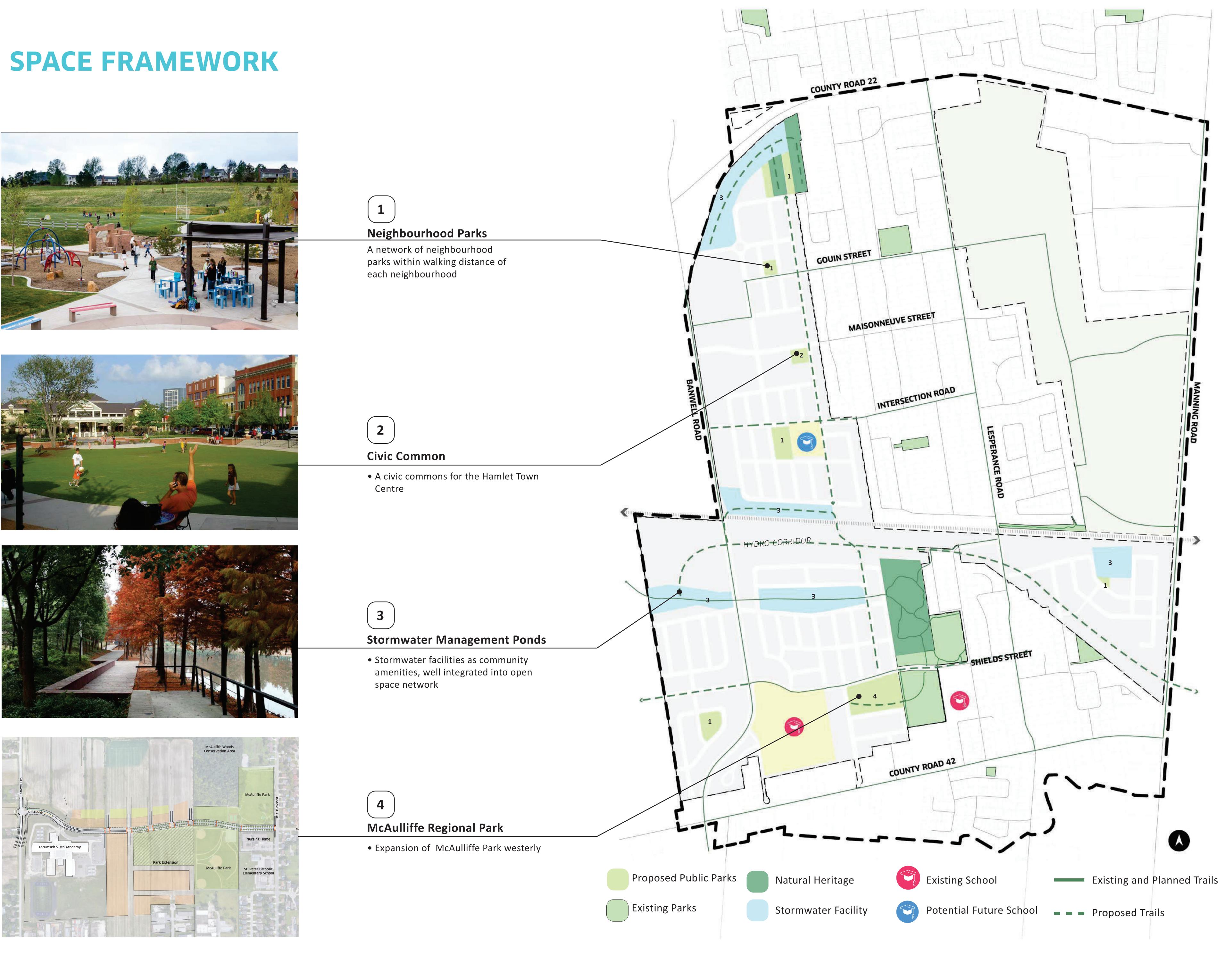
- Cycling Network

A comprehensive and connected neighbourhood fabric that encourage cycling

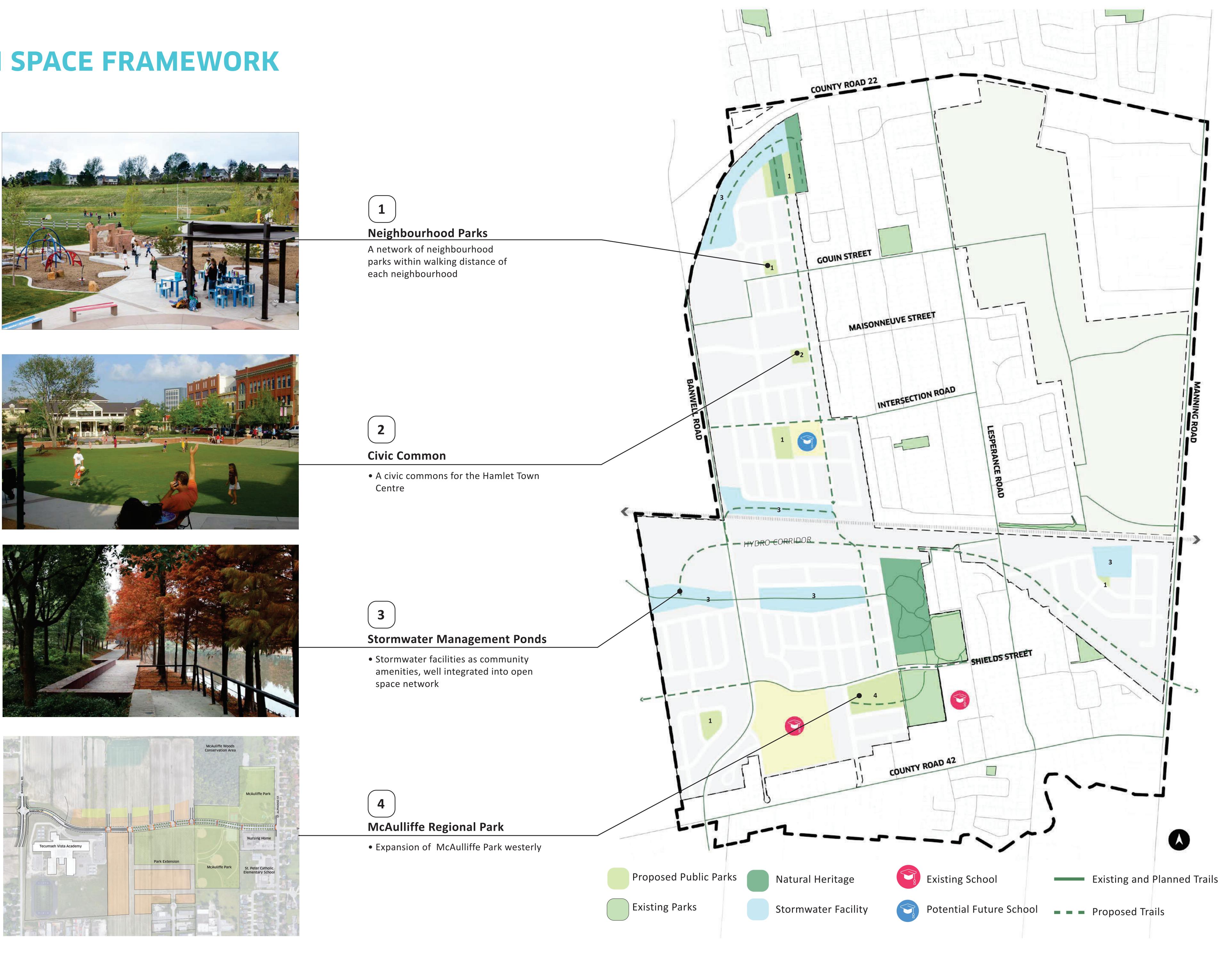
DIALOG®

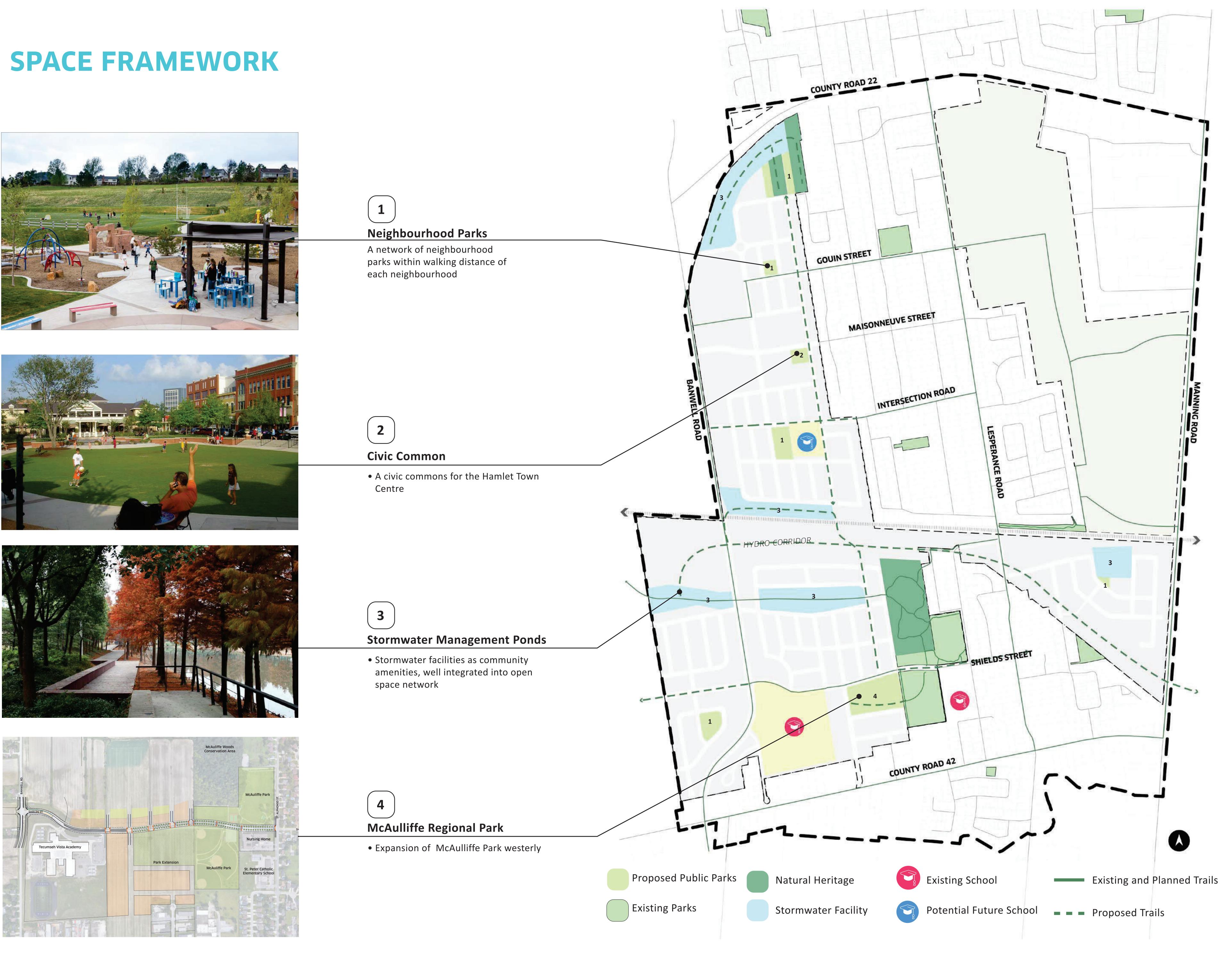
EXISTING TRAILS PROPOSED TRAILS OFF-ROAD ON-ROAD SHARED • • • • • ON AND OFF-ROAD

OPEN SPACE FRAMEWORK











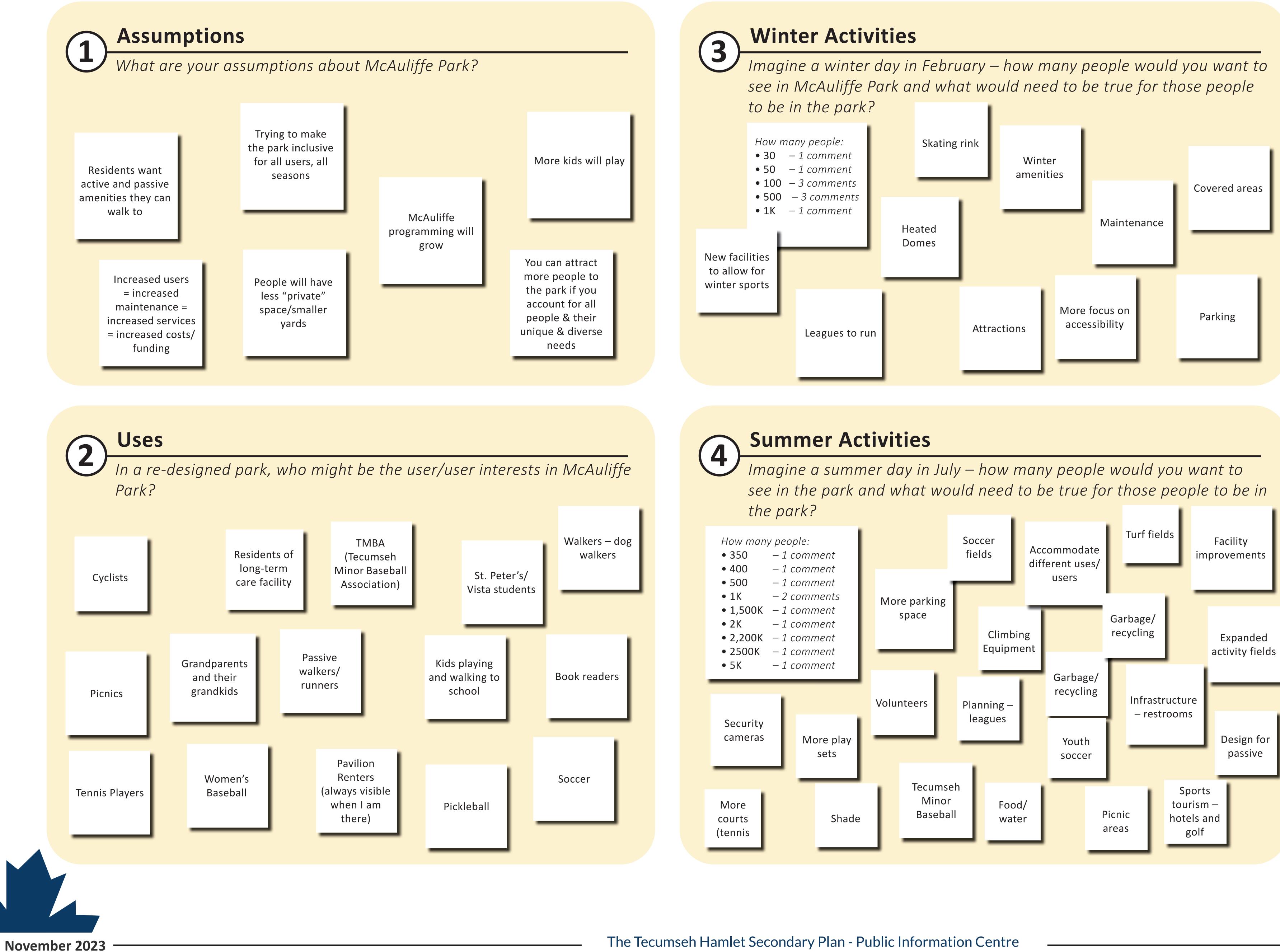


The Tecumseh Hamlet Secondary Plan

November 2023

DIALOG®

DESIGN WORKSHOP WITH MCAULIFFE SPORTS GROUPS - JULY 10, 2023 WHAT WE HEARD



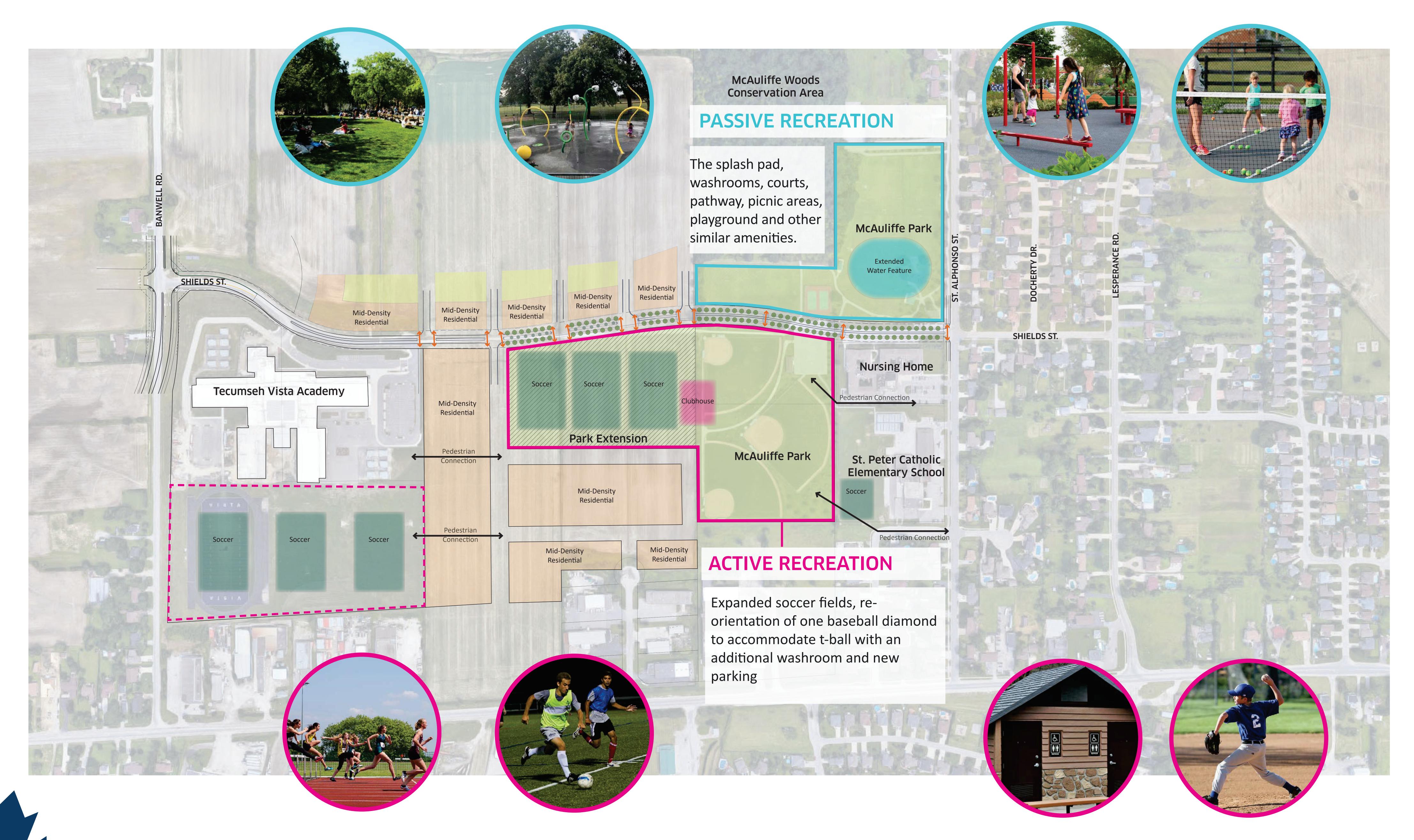
The Tecumseh Hamlet Secondary Plan







DESIGN WORKSHOP WITH MCAULIFFE SPORTS GROUPS - JULY 10, 2023 WHAT WE HEARD





The Tecumseh Hamlet Secondary Plan



SHIELDS EXTENSION - LOOKING SOUTHWEST



Existing



Conceptual Rendering - Potential Future of Shileds.



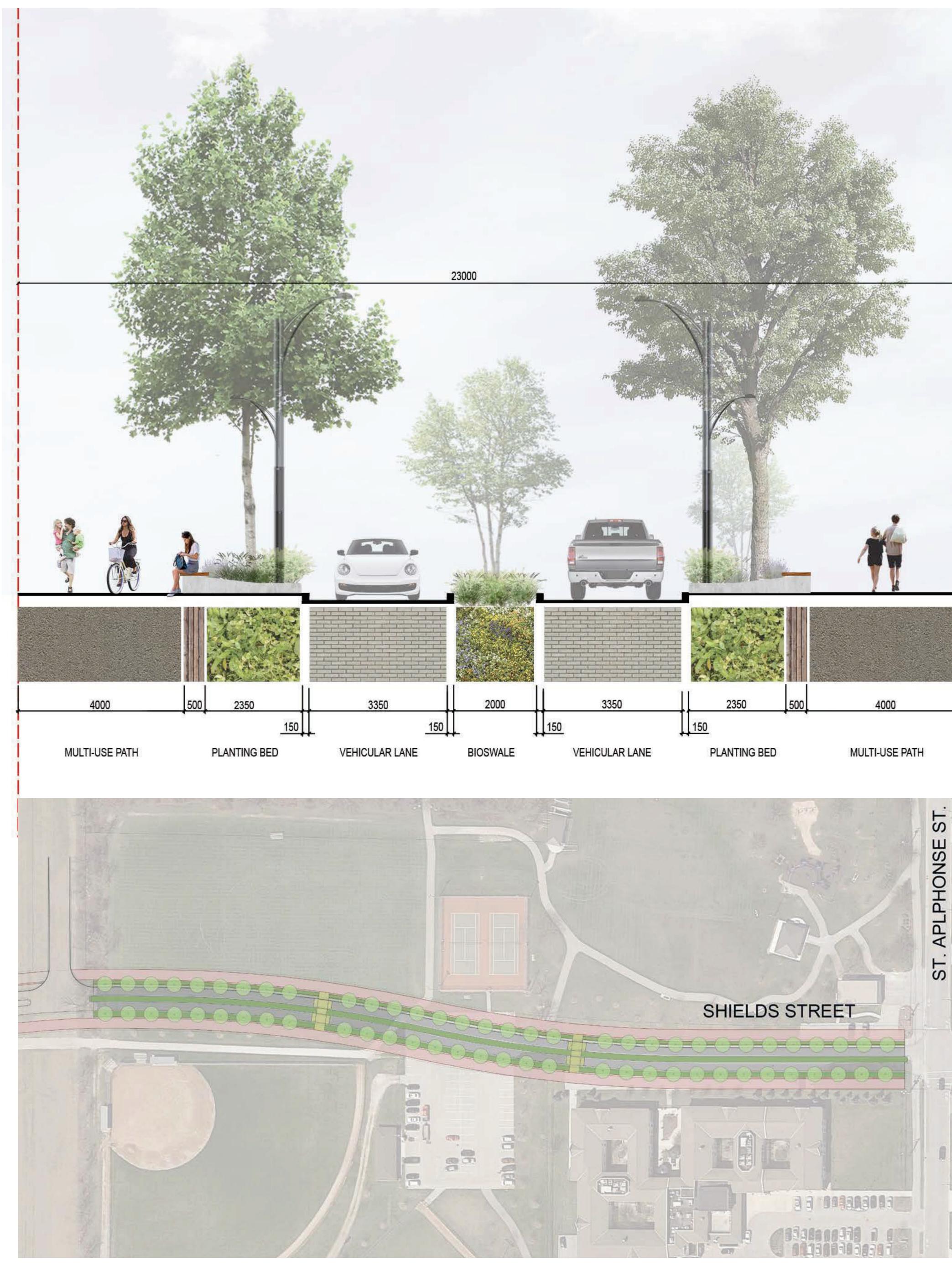
The Tecumseh Hamlet Secondary Plan



Conceptual Rendering - Potential Future of Shileds.



SHIELDS EXTENSION - CROSS SECTION + PLAN





November 2023

The Tecumseh Hamlet Secondary Plan

The Tecumseh Hamlet Secondary Plan - Public Information Centre







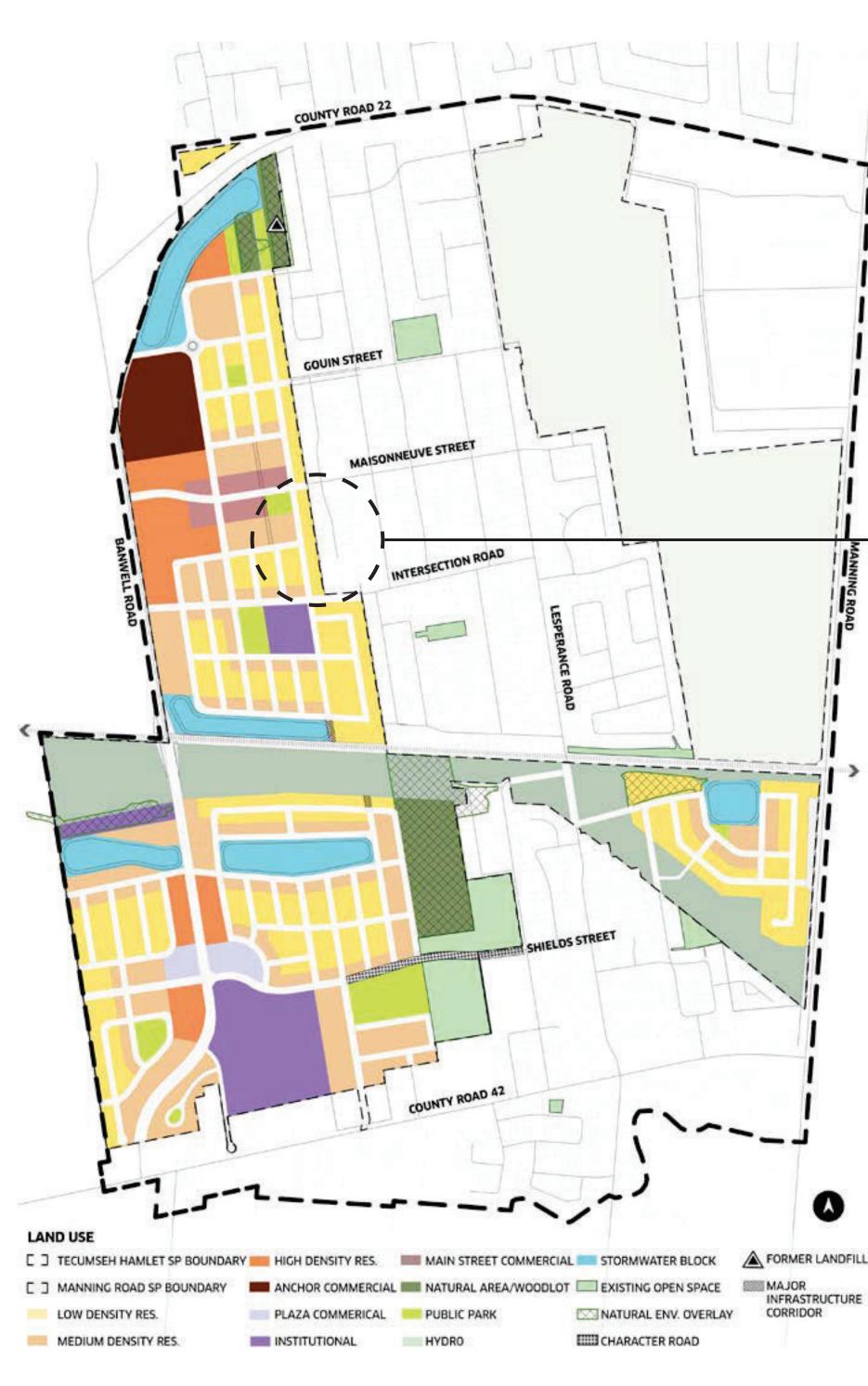


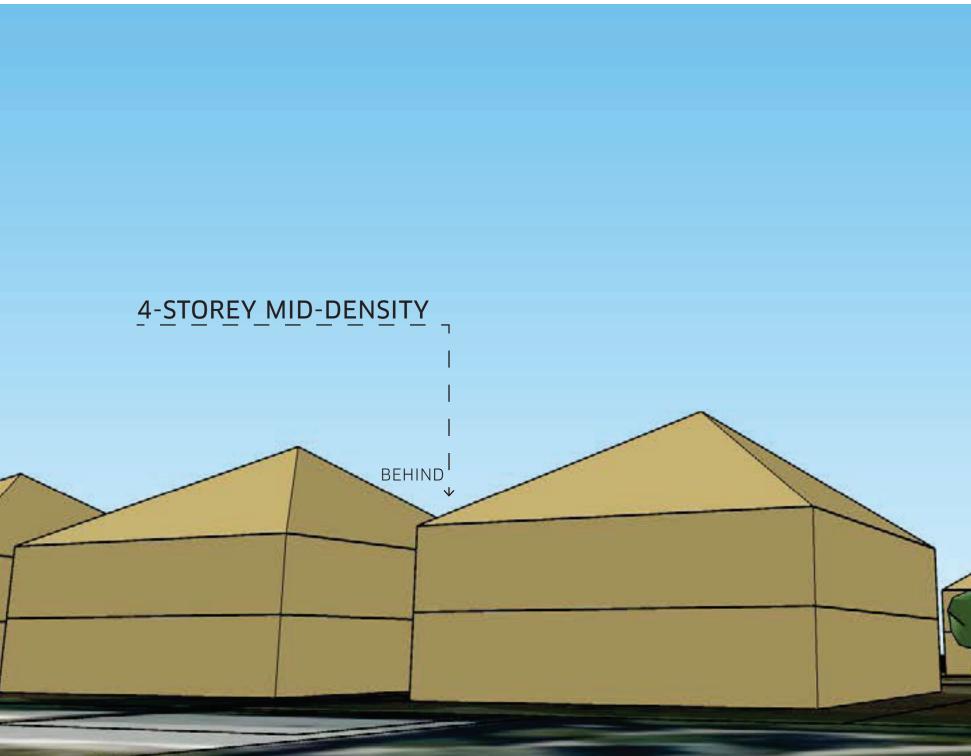






TRANSITION TO EXISTING NEIGHBOURHOODS

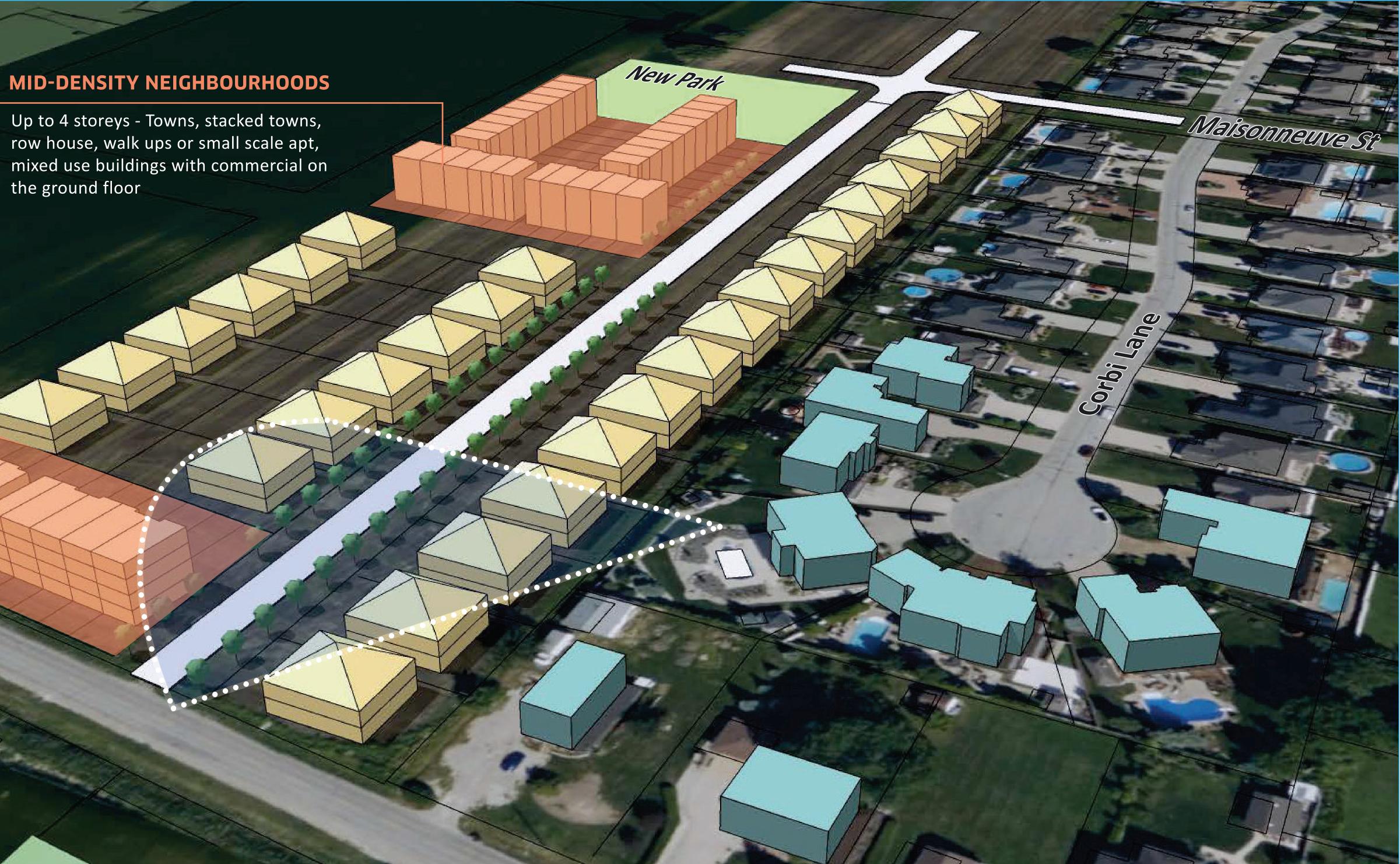


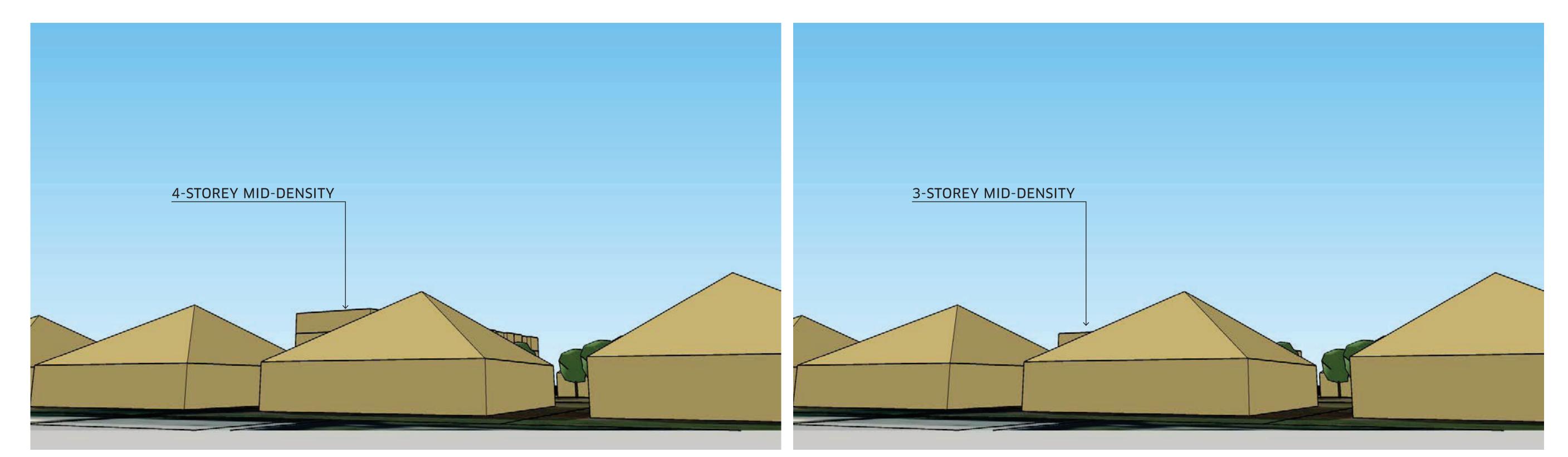


TWO STOREY LOW DENSITY BACKING ONTO EXISTING RESIDENTIAL 4-STOREY MID-DENSITY THAT IS LOCATED A BLOCK OVER, IS NOT VISIBLE.



The Tecumseh Hamlet Secondary Plan





SINGLE STOREY LOW DENSITY BACKING ONTO EXISTING RESIDENTIAL 4-STOREY MID-DENSITY THAT IS LOCATED A BLOCK OVER, IS SLIGHTLY VISIBLE.

SINGLE STOREY LOW DENSITY BACKING ONTO EXISTING RESIDENTIAL 3STOREY MID-DENSITY THAT IS LOCATED A BLOCK OVER, IS NOT VISIBLE.

