



MARKHAM ROAD MOUNT JOY

SECONDARY PLAN STUDY

EXECUTIVE SUMMARY

JUNE 2023

Executive Summary

Study Purpose, Process and Area

SvN Architects and Planners ("SvN") was retained by the City of Markham to lead a team of multi-disciplinary consultants, comprising of HDR Inc., Counterpoint Engineering, and Jonathan Tinney, to undertake a Study to inform the development of a vision and comprehensive planning framework for the Markham Road - Mount Joy Secondary Plan ("MRMJSP") Area. The purpose of the Study was to prepare a Demonstration Plan, as well as Policy Guidance and Recommendations to inform the preparation of the Secondary Plan.

The MRMJSP Area is situated in the northeast portion of the City, south of the northeastern limit of Markham's Urban Area. The MRMJSP Area is approximately 97 hectares in size. It is comprised of the lands along Markham Road between 16th Avenue and Major Mackenzie Drive East. The westerly limit is generally defined by the extent of the commercial properties on the west side of Markham Road. The easterly limit of the MRMJSP Area is generally defined by the Stouffville GO Rail Corridor. Through the evolution and review of this work, the Metrolinx-owned parking lot east of the Stouffville GO Rail Corridor, on the south side of Bur Oak Avenue was deemed appropriate for inclusion

within the MRMJSP Area as well, due to its potential for redevelopment and connectivity, along with private lands which had recently gone through development approvals, adjacent to Major Mackenzie Drive East. The Study Area associated with the MRMJSP ("The Study Area") extended beyond the boundaries described above, specifically with respect to the transportation network and civil servicing systems. More information is provided in Section 1.3 regarding the general extent of the Study Area.

The MRMJSP Area is currently characterized by large tracts of single-use lands. This pattern of development is not sustainable, nor will it serve a growing, transit and pedestrian-supportive community. The MRMJSP presents a significant opportunity to leverage existing assets, including the Mount Joy GO Station, Greenway System and Mount Joy Creek, the Mount Joy Business Park, the Markham Museum, surrounding neighbourhoods, parks and open spaces, and the adjacent Markham Village main street. A new Secondary Plan is needed to direct growth comprehensively and in line with the City's intensification strategy. This is also relevant as two existing Secondary Plans flank the MRMJSP Area on its east and west.

Potential exists to transform Markham Road from a car-dependent, generic arterial road into an attractive, tree-lined street that will encourage active transportation. This transformation will be facilitated by the establishment of a new street and block framework, which will introduce a new network of connector and local streets, as well as active transportation connections and infrastructure. This will be provided in tandem with new land use policies, which set the stage for mixed-use development, a series of new parks and open spaces, and new community facilities and infrastructure.

Multiple stakeholder and community consultation sessions were undertaken throughout the duration of the Study process. This included engagement with City officials, reviewing agencies, area landowners, and the public. The consultation sessions initially presented background information on the study area associated with the MRMJSP Area, and solicited feedback in the development of a Vision and Guiding Principles that will guide the evolution and maturation of the MRMJSP Area from an auto-dependent, arterial corridor to a more dynamic, mixed-use community. Following this, the engagement sessions resulted in valuable feedback into the development of the Demonstration Plan and Policy Guidance, discussed within this report.

The Study was conducted over six phases, as follows:

- » **Phase 1:** Project Kick-Off and the Establishment of a Project Management Plan;
- » **Phase 2:** Background Review, Data Collection and Assessment;
- » **Phase 3:** Development of Vision, Guiding Principles,

Demonstration Plans, Draft Policy Guidance and Recommendations, and a series of Design Charrette events with the public;

- » **Phase 4:** Presentation to Development Services Committee and Community Consultation, including the refinement of the Demonstration Plans;
- » **Phase 5:** Transportation and Municipal Services Analysis and Recommendation Reports; and,
- » **Phase 6:** Final Study Report.

The Study recommendations provide direction to structure growth in a manner that will be appropriate and transformative for the MRMJSP Area as a whole, with a focus primarily related to the existing Mount Joy GO Station Area and Markham Road corridor, and a GO Rail Station subject to further study at Major Mackenzie Drive East.

As a City-led policy initiative, the Secondary Plan Study referred to Metrolinx's 'Market Driven Strategy to Delivery Transit Infrastructure' (2018) to ensure the creation of a sustainable, resilient, vibrant, complete and transit-supportive community. This approach aligns with Provincial policy, which directs population and employment growth to Major Transit Station Areas (MTSAs).

Vision and Guiding Principles

Overview

The land use objective for the Markham Road – Mount Joy Secondary Plan Area as outlined in Policy 9.3.71 of the Official Plan 2014 is to provide for:

“a mixed-use local corridor that functions as a main street integrating a range of housing, employment, shopping and recreation opportunities, at transit-supportive densities adjacent to the GO station, to serve the adjacent communities of Berczy Village, Wismer Commons, Greensborough and Swan Lake.”

In order to achieve this objective the consultant team, with the support of City Staff, delved into a robust background review, data collection and assessment of the existing conditions of the Secondary Plan Area and its surrounding context. This review also included a detailed look at the policy framework, and best practices and precedents for sustaining transit-supportive communities. It is this process that led to the draft Vision, which in turn informed the development of Guiding Principles for the Secondary Plan Area. The Vision and Guiding Principles were further refined based on feedback received throughout the consultation process.

Vision

The following Vision was developed and refined through the review of the baseline conditions, as well as public consultation sessions. The Vision and accompanying Guiding Principles were subsequently used to inform all future steps of the Study:

“The Markham Road – Mount Joy Secondary Plan Area will evolve into a walkable, compact, and vibrant mixed-use community. It will also function as a gateway, main street, workplace, and social and cultural hub serving this community and the surrounding communities of Berczy Village, Wismer Commons, Greensborough, Swan Lake, and Markham Village.

To do so, a range and mix of housing, including affordable and rental housing, employment, shopping and recreation opportunities will be integrated and provided at transit-supportive densities that are compatible with the established low-rise residential neighborhoods. The greatest intensity of development and activity will be near rapid transit stations, complemented by animated parks, schools, community and recreation facilities, and other amenities. All these elements are tied together and enriched with a vibrant public realm that drive the appeal, livability, resilience and distinct sense of place of the Markham Road – Mount Joy Area.”

Guiding Principles

Building upon the Vision, the following Guiding Principles were developed and refined through consultation to provide the framework for development of a vibrant MRMJSP complete community. The principles include:

1. Protecting and Enhancing the Natural Environment
2. Building Compact and Complete, Rail-Integrated Communities
3. Increasing Mobility Options
4. Maintaining a Vibrant and Competitive Economy
5. Adopting Green Infrastructure and Development Standards
6. Facilitating Public Input and Long-Range Planning and Implementation

Demonstration Plan

Overview

This report presents the Demonstration Plan, and forms the basis for Policy Guidance and Recommendations to inform the preparation of the MRMJSP. The Demonstration Plan is in keeping with the Vision and Guiding Principles. It has been informed by the findings of the baseline conditions assessment, as well as consultation with City of Markham, stakeholders and the public. It has emerged out of an iterative process of review and evaluation and is premised on a set of land use and built form assumptions that are supported by the transportation and servicing technical work and a set of development yields. It is built on a set of framework elements, inclusive of natural heritage, public realm and open space, street hierarchy, precincts, gateways and placemaking opportunities, land use and built form, and phasing.

Finally, the Demonstration Plan contemplates the expansion of the MRMJSP Area. Additional lands were incorporated, including private lands south of Major Mackenzie Drive East that recently went through the development approvals process, and the existing surface parking lot, located east of Mount Joy GO Station, on the south side of Bur Oak Avenue and east of the Stouffville GO Rail Corridor.

The Demonstration Plan contemplates the build-out of the MRMJSP Area and includes a connection to a GO Rail Station that is subject to further study, which is recommended for protection on the north side of Major Mackenzie Drive East. Furthermore, the report provides an overview of other planning and design considerations, which informed the preparation of the Demonstration Plan. These include the existing and potential GO

stations, the transformation of Markham Road, and the recommended realignment of Mount Joy Creek.

The Demonstration Plan anticipates that development within the MRMJSP Area will occur in multiple phases, to full build-out.

Key Elements of the Framework

The key elements of this framework include:

- » Transformation of the Markham Road Corridor into a pedestrian-oriented boulevard and mixed-use main street destination;
- » Addressing overall connectivity between the MRMJSP Area and neighbouring communities;
- » Expansion of the existing collector road network through the extension of Anderson Avenue and Edward Jeffreys Avenue, and the introduction of additional Minor Collector Streets and local roads;
- » Prioritization of at-grade retail frontages along the length of Markham Road, between Castlemore Avenue to the north and 16th Avenue to the south;
- » Establishment of active frontages along the length of Markham Road, Castlemore Avenue, Bur Oak Avenue, and Anderson Avenue;
- » Establishment of three distinct precincts inclusive of the North, Central and South Precincts;
- » Establishment of a Mixed Use Node surrounding the Mount Joy GO Station to support residents and jobs and create a vibrant community hub;
- » Establishment of appropriate transition in height and density toward Markham Village south of 16th Avenue and adjacent communities to the east and west;

- » Incorporation of a Mixed Use Employment Hub within Mount Joy Business Park Area, overlapping with the GO Station Mixed Use Node overlay;
- » Creation of an integrated network of parks and open spaces;
- » Restoration and enhancement of the Greenway System, and re-alignment of Mount Joy Creek;
- » Clustering of community services, infrastructure and facilities;
- » Clustering and mixing of commercial, employment and residential uses;
- » Establishment of an active transportation network, inclusive of protected cycling facilities, a multi-use trail, Green Streets and Pedestrian Connections, and pedestrian crossings over or under the Stouffville GO Rail Corridor, including connection to the GO Rail Station subject to further study at Major Mackenzie Drive East; and,
- » Creation of a retail priority area in the south precinct on the east side of Markham Road north of 16th Avenue.

Land Use and Urban Design

Overview

The following section summarizes key land use and urban design Policy Guidance and Recommendations, to inform the preparation of the MRMJSP. Specifically, direction is provided with respect to sustainability and resiliency, natural heritage, land use and built form, precincts, community infrastructure and facilities, cultural heritage, public realm, market and real estate, and affordable housing.

Policy Guidance & Recommendations

Sustainability and Resiliency

- » It is recommended that the MRMJSP be planned to:
 - » Incorporate strategies to evaluate, prepare for, mitigate and adapt to climate change, as well as acute shocks (e.g. flash floods) and chronic stressors (e.g. undersized stormwater management infrastructure), with consideration for public health and safety, infrastructure and food security, and emergency services;
 - » Consider automated vacuum waste collection (AVAC)
 - » Achieve the goals and objectives of the City of Markham Community Energy Plan by:
 - » Encouraging the design of net zero ready buildings;
 - » Incorporating solar photovoltaic infrastructure;
 - » Designing all residential and non-residential buildings to be Electric Vehicle ready;
 - » Embody biophilic design principles, increasing connectivity between building residents and occupants with the natural environment; and,

- » Providing publicly accessible EV charging infrastructure.
- » Apply a sustainability and resiliency-based lens to the application and enforcement of relevant policies pertaining to natural heritage, land use and built form, community infrastructure and facilities, cultural heritage, public realm, affordable and rental housing, transportation, and municipal servicing.

Natural Heritage

'Greenway' and Mount Joy Creek System

- » It is recommended that the MRMJSP be planned to:
 - » Minimize risk to human health, safety and property associated with Flooding and Erosion;
 - » Incorporate appropriate buffers from hazard lands and Natural Heritage Features;
 - » Implement the recommended alignment (Option 5) to reconfigure Mount Joy Creek to remove the flood hazard;
 - » Protect and enhance a connected 'Greenway' System, including the partial daylighting of Mount Joy Creek;
 - » Encourage the identification of trails, where appropriate, in the Greenway System;
 - » Provide a 3.5 metre vegetation buffer along the railway corridor to protect for electrification;
 - » Enhance tree plantings and natural cover in the Greenway System and Open Space System (e.g., along the Multi-use trail and realigned of Mount Joy Creek)

- » Protect and improve existing aquatic and terrestrial habitat, and encourage the establishment of new habitat, where possible; and,
- » Require a landowners group and agreements to share the cost of implementing the Mount Joy Creek realignment, which should serve as a pre-requisite to development on lands located east of Anderson Avenue.

Woodlands, Wetlands and Waterbodies

- » It is recommended that the MRMJSP be planned to:
 - » Reinforce the role of woodlands and wetlands as a significant natural heritage resource for residents of, and visitors to, the MRMJSP Area.

Land Use and Built Form

Land Use

- » It is recommended that the MRMJSP be planned to:
 - » Ensure compatibility with the character and pattern of adjacent and surrounding development within the MRMJSP Area;
 - » Contribute to a complete community with a full range of housing, including affordable and rental housing, employment, services and amenities to meet the daily needs of people of all ages, abilities and incomes;
 - » Encourage age friendly development including for seniors and accessibility;
 - » Achieve an appropriate mix of commercial, employment, residential and institutional uses;
- » Achieve an appropriate mix of commercial, employment and institutional uses, including art galleries, banquet halls, business offices, fitness centres, financial institutions, hotels, clean industrial uses, medical offices, personal service shops, places of worship, recreational establishments, restaurants, retail stores, commercial schools, trade and convention centres, and veterinary clinics;
- » Achieve an appropriate mix of residential uses, including townhouse dwellings and apartment dwellings;
- » Support the existing Mount Joy GO Station site and potential Major Mackenzie GO Station site as transit trip origins and destinations;
- » Implement integrated, transit-supportive communities which support redevelopment through the establishment of partnerships between landowners, the City of Markham, and Metrolinx, as part of the Metrolinx Market Driven Transit-Oriented Community Strategy;
- » Encourage a high quality of urban design;
- » Promote the creation of 15-minute neighbourhoods, through the strategic location, integration and disposition of residential uses, neighbourhood and convenience-based commercial uses, employment uses, parks and open spaces, and community infrastructure and facilities;
- » Protect and consider incentivization to support a broader range of employment uses in the Mount Joy Business Park;

- » Size retail uses appropriately in the MRMJSP Area to support the needs of residents within the trade area currently served by this portion of Markham Road. Based on the scale of future population growth expected within this trade area, it is recommended that a range of between 125,000 and 150,000 square metres of retail floor space be permitted within the MRMJSP Area;
- » Ensure that employment uses within mixed use areas:
 - » Support retail and office commercial employment-generating activities; and,
 - » Utilize upper storeys as flexible space, allowing for a range of office employment to support potential office development without specifically designating or preserving upper storey spaces solely for office uses.
- » Prioritize employment uses at-grade, with a continuous rhythm of active frontages designed with flexibility in mind to accommodate for changing needs, along either side of Anderson Avenue, between the pedestrian walkway and public park to the north, and Bur Oak Avenue to the south;
- » Prioritize retail uses at-grade, with a continuous rhythm of active frontages oriented toward public streets;
- » Prioritize a fine-grain of retail uses at-grade, with active frontages designed in the following locations:
 - » Along either side of Markham Road, between Castlemore Avenue to the north and 16th Avenue to the south;
 - » Along either side of Minor Collector Street 6, between Bur Oak Avenue to the north, and Local Street 6 to the south; and,
 - » Along either side of the Pedestrian Mews, between Markham Road to the northwest and the Mount Joy GO Station Site to the southeast.
- » Focus building layouts for large-format retail uses along the east side of Markham Road, between 16th Avenue and Edward Jeffreys Avenue, to support its role as a local and regional hub of commercial activity.

Height, Massing and Density

- » It is recommended that the MRMJSP be planned to:
 - » Achieve a minimum of 200 residents and jobs combined per hectare within the Mount Joy GO Station Major Transit Station Area;
 - » Achieve a minimum targeted build-out of ~32,000 residents and ~6,000 jobs;
 - » Achieve building heights that fit within the emerging context and that allow for new development to contribute to the overall population and employment targets;
 - » Establish appropriate height and density peaks and transitions throughout the MRMJSP Area, including:
 - » Primary height and density peaks surrounding the existing Mount Joy and potential Major Mackenzie GO Station Areas;

- » Secondary height and density peaks along the length of Markham Road, between Major Mackenzie Drive East to the north and Minor Collector 7 Street to the south; and,
- » Downward transitions between the primary and secondary height peaks to adjacent and surrounding areas of the North, Central and South Precincts, as well as the Greensborough Neighbourhood to the east, Wismer Commons Neighbourhood to the west, and Markham Village to the south.
- » Incorporate podiums, which are massed to define street edges, creating a consistent street wall, providing an appropriate presence at street level, and promoting the creation of private courtyards in the centre of development blocks;
- » Incorporate upper-storey setbacks between podiums and towers;
- » Maintain maximum tower floorplates of 800 square metres;
- » Maintain minimum tower separation distances of 30 to 35 metres, offsetting the location of towers, where possible;
- » Maintain significant views and vistas, and reinforce the prominence of visual termini;
- » Ensure access to sky views and from the minimal shadow impacts on public and private streets, Public Parks, Open Spaces, Community Facilities, and adjacent neighbourhoods;
- » Ensure adequate buffers are provided between the Stouffville GO Rail Corridor, and adjacent residential and sensitive non-residential uses, such as commercial and office uses; and,

- » Encourage comprehensive planning and development of the required crash wall within the buffer associated with the Stouffville GO Rail Corridor.

Precincts

General

- » It is recommended that the MRMJSP be planned to:
 - » Incorporate three Precincts associated with the North, Central and South Neighbourhoods, and the Mount Joy GO Station Mixed Use Node overlay;
 - » Ensure that each Precinct responds to its unique context, built form considerations and land use mix, while maintaining a sense of cohesion and shared identity across the MRMJSP Area; and,
 - » Contribute toward the establishment of a unique sense of place.

North Precinct

- » It is recommended that the MRMJSP be planned to:
 - » Achieve maximum interim building heights of 15 storeys inside the potential Major Mackenzie GO Station Area, to be increased to 40 storeys, following approval of the GO Station;
 - » Consider maximum building heights of 25 storeys at the gateway intersection of Markham Road and Castlemore Avenue;
 - » Provide a downward transition in height and density to:
 - » Greensborough neighbourhood to the east;
 - » Wismer Commons neighbourhood to the west; and,

- » Lands containing the Public Park and Community Infrastructure and Facilities to the south.

GO Rail Station Subject to Further Study at Major Mackenzie Drive East

- » It is recommended that the Major Mackenzie GO Station Area be planned to:
 - » Accommodate for the potential to locate the station platform along either the north or south sides of Major Mackenzie Drive East, as well as across the width of the right-of-way;
 - » Include north / south connections to the potential Major Mackenzie GO Station and associated transit plaza and multi-use trail, under Major Mackenzie Drive East. Development on the south side of Major Mackenzie Drive East should be planned to support transit-supportive densities, infrastructure investments, and ridership;
 - » Promote three-dimensional placemaking, with a pedestrian realm occupying multiple levels above grade, establishing layers of program and activity within the Station Site;
 - » Incorporate a range of compatible neighbourhood and convenience-based commercial uses at-grade. These could include such uses as a grocery store, child care facility, postal service, medical clinic, dental clinic and pharmacy;
 - » Incorporate an appropriate range of residential and non-residential uses on upper storeys;
 - » Incorporate multiple tiers of occupancy, with a variety of tenures inclusive of age, ability and income;

- » Be subject to landowner agreements, which facilitate private-sector funding associated with the design and construction of the Major Mackenzie GO Station and associated infrastructure;
- » Implement an integrated, transit-supportive community which supports redevelopment through the establishment of partnerships between landowners, the City of Markham, and Metrolinx, as part of the Metrolinx Market Driven Transit-Oriented Community Strategy; and,
- » Consolidate parking in below-grade structures.

Central Precinct

- » It is recommended that the Central Precinct be planned to:
 - » Concentrate the greatest heights and densities within the GO Station Mixed-Use Node, on the lands bounded by:
 - » Minor Collector Street 4 and Minor Collector Street 5 to the north;
 - » Stouffville GO Rail Corridor to the east;
 - » Edward Jeffreys Avenue to the south; and,
 - » Minor Collector Street 2 to the west.
 - » Provide a downward transition in height and density to:
 - » The North Precinct to the north, with particular emphasis given to the lands containing the Public Park, and Community Infrastructure and Facilities to the north;
 - » Greensborough neighbourhood to the east;
 - » Portions of the South Precinct, which fall

outside of the GO Station Mixed-Use Node, to the south; and,

- » Wismer Commons neighbourhood to the west.
- » Achieve minimum building heights of 3 storeys;
- » Achieve maximum building heights of 45 storeys inside of the GO Station Mixed-Use Node;
- » Achieve maximum building heights of 20 storeys outside of the GO Station Mixed-Use Node; and
- » Consider maximum building heights of 25 storeys at the gateway intersection of Markham Road and Edward Jeffreys Avenue.

Mixed Use Employment Hub

- » It is recommended that the Mixed Use Employment Hub be planned to:
 - » Establish an appropriate mix of active industrial and service commercial uses at-grade, comprising a minimum 80% of gross floor area;
 - » Require at-grade building designs that accommodate appropriate industrial height ceilings of 5.5m or greater, commercial loading docks, ventilation, power, proper separation and potential mezzanine space to support active productive activities on the ground floor;
 - » Encourage buildings which are specific by design, with the flexibility to accommodate for changes and adaptations in use over time;
 - » Incorporate incubator spaces, live-work spaces, small office and studio spaces, a variety of communal and co-working spaces and a range of small, moderate and large maker spaces

to promote entrepreneurship, innovation and opportunity on upper levels;

- » Provide for a range of clean and technology-based light industrial, manufacturing and distribution facilities which can co-exist harmoniously alongside commercial, office and residential uses on upper storeys of vertically-integrated mixed-use buildings, as well as in adjacent and separate buildings;
- » Incorporate enhanced public realm treatments along the length of Anderson Avenue;
- » Provide direct connections to the 'Greenway' System, and associated multi-use trail, located along the length of the Stouffville GO Rail Corridor; and,
- » Prohibit standalone residential uses and residential uses at-grade.

GO Station Mixed Use Node Overlay

- » It is recommended that the GO Station Mixed Use Node Overlay be planned to:
 - » Concentrate the greatest heights and densities on top of, and adjacent to, the GO Station site;
 - » Incorporate a Public Gateway Plaza at the southeast corner of Markham Road and Bur Oak Avenue, and a diagonal Pedestrian Mews extending from the Public Gateway Plaza to a Public Park and the Station Site and adjacent Transit Plaza;
 - » Establish a continuous mid-rise street wall condition along the length of the Pedestrian Mews, with taller building elements set back to create an appropriate and desirable scale of development;

- » Ensure all buildings fronting onto the Pedestrian Mews incorporate pedestrian weather- protection elements at-grade, such as awnings or canopies;
- » Incorporate enhanced public realm treatments along the length of Markham Road, Bur Oak Avenue, Minor Collector Street 6, and the Pedestrian Mews;
- » Provide direct connections to the Transit Plaza, and associated multi-use trail, located along the length of the Stouffville GO Rail Corridor;
- » Promote three-dimensional placemaking, with a pedestrian realm occupying multiple levels above grade, establishing layers of program and activity within the Station Site;
- » Incorporate a range of compatible neighbourhood and convenience-based commercial uses at-grade. These could include such uses as a grocery store, child care facility, postal service, medical clinic, dental clinic and pharmacy;
- » Incorporate an appropriate range of residential and non-residential uses on upper storeys;
- » Incorporate multiple tiers of occupancy, with a variety of tenures inclusive of age, ability and income;
- » Implement an integrated, transit-supportive community which supports redevelopment through the establishment of partnerships between landowners, the City of Markham, and Metrolinx, as part of the Metrolinx Market Driven Transit-Oriented Community Strategy; and,
- » Consolidate parking in below-grade structures.

South Precinct

- » It is recommended that the South Precinct be planned to:
 - » Concentrate the greatest heights and densities within the Mount Joy GO Station Mixed-Use Node, on the lands bounded by:
 - » Bur Oak Avenue to the north;
 - » Stouffville GO Rail Corridor to the east;
 - » Local Street 6 to the south; and,
 - » Markham Road to the west.
 - » Provide a downward transition in height and density to:
 - » Greensborough neighbourhood to the east;
 - » Wismer Commons neighbourhood to the west; and,
 - » Markham Village HCD to the south.
 - » Achieve minimum building heights of 3 storeys;
 - » Achieve maximum building heights of 45 storeys inside of the GO Station Mixed-Use Node;
 - » Achieve maximum building heights of 20 storeys outside of the GO Station Mixed-Use Node;
 - » Consider maximum building heights of 25 storeys at the gateway intersection of Markham Road and Edward Jeffreys Avenue;
 - » Incorporate a fine grain of development along the length of Markham Road;

- » Incorporate neighbourhood and convenience based commercial uses at-grade along Markham Road;
- » Explore opportunities to expand community infrastructure and facilities and programs at, and adjacent to, the Markham Museum Site and Mount Joy Community Centre;
- » Enhance connectivity and access to the Markham Museum site and Mount Joy Park and Community Centre;
- » Serve as a northward extension of the Markham Village main street; and,
- » Explore options to integrate the GO Station parking lot east of the railway corridor.

Community Infrastructure & Facilities

General

- » It is recommended that the MRMJSP be planned to:
 - » Accommodate a variety of social, educational, cultural and recreational amenity spaces, and a variety of services, courses, programs and activities; and,
 - » Address the City of Markham's Places of Worship Site Reservation Policy, as referenced in the 2014 Official Plan.

Schools

- » It is recommended that the MRMJSP be planned to:
 - » Establish a 3.5 to 4.0 acre School site in the North Precinct, generally between the Anderson Avenue Extension and the Stouffville Road

Corridor, and south of Local Street 11, to serve the needs of existing and future residents;

- » Establish a 3.5 to 4.0 acre School site in the Central Precinct southwest of Castlemore Avenue and Minor Collector 2, to serve the needs of existing and future residents;
- » Co-locate the School with a Public Park, and adjacent combined piped and open channel associated with the 'Greenway' and Mount Joy Creek System; and,
- » Encourage the development of mixed use school sites, integrated with private development, where appropriate.

Cultural Heritage

Cultural Heritage

- » It is recommended that the MRMJSP be planned to:
 - » Conserve, respect and, enhance cultural heritage features, elements and landscapes where they exist within and adjacent to the MRMJSP Area;
 - » Explore alternatives, including but not limited to the partial retention of cultural heritage resources, to retain as much of the cultural heritage resource in situ as possible, in circumstances where it is not feasible to maintain and conserve the cultural heritage resource in its entirety;
 - » Explore relocation of cultural heritage resources as a last resort option, only where all other alternatives have been deemed undesirable or not feasible;

- » Ensure visual access to Designated Heritage Properties from adjacent Streets, Parks and Open Spaces;
- » Integrate cultural heritage features within future development, where appropriate; and,
- » Enhance cultural identity and opportunities for expression and interpretive learning through public art, informational plaques, and other initiatives.

Public Realm

Street Network

- » It is recommended that the MRMJSP be planned to:
 - » Introduce a fine grain street network, inclusive of new Minor Collector Streets and Local Streets which are safe, comfortable and accessible, and which promote walking and cycling;
 - » Provide logical and direct connections between adjacent blocks, through a combination of signalized and non-signalized intersections, and on-demand mid-block pedestrian crossings;
 - » Introduce a network of mid-block pedestrian connections and crossings, which facilitate; and,
 - » Establish a seamless interface between ground floor uses and the adjacent boulevard, in order to enliven and animate the MRMJSP Area, and promote casual surveillance.

Markham Road

- » It is recommended that Markham Road be planned to:
 - » Transform into a vibrant and animated main street that supports a complete community, through the introduction of transit infrastructure, and the rebalancing of space dedicated to roadway and public realm elements;
 - » Establish a continuous mid-rise street wall condition, with taller building elements set back to create an appropriate and desirable scale of development;
 - » Introduce a unique streetscape and public realm design standard for Markham Road;
 - » Ensure all buildings incorporate pedestrian weather-protection elements at-grade, such as awnings or canopies;
 - » Incorporate generous front yard setbacks, on either side of Markham Road, to facilitate the provision of a flexible spill-out zone associated with ground floor commercial uses, to be utilized as an extension of interior commercial space for the purposes of outdoor seating, presentation or sales space, which reads as an extension of the public sidewalk;
 - » Within the easement, utilize the space on the west side of Markham Road, to facilitate the provision of an expanded flexible spill-out zone associated with ground-floor commercial space for the purposes of outdoor seating, presentation or sales space, which reads as an extension of the public sidewalk;

- » Provide for generous boulevards on either side of Markham Road, between the roadway and adjacent flexible spill-out zones, inclusive of generous landscaping, sidewalks, and protected cycling facilities; and,
- » Increase the number of signalized intersections, and provide signalized crossings at regular intervals, between Major Mackenzie Drive East to the north, and Edward Jeffreys Avenue to the south.

Green Streets and Pedestrian Connections

- » It is recommended that the MRMJSP be planned to:
 - » Establish an inter-connected network of Green Streets and Pedestrian Connections, which include generous boulevard widths, wide sidewalks and continuous tree planting and landscape zones;
 - » Utilize Green Streets and Pedestrian Connections as a means of establishing linkages between Parks, Open Spaces, major streets, the Mount Joy GO Station Area, and the potential Major Mackenzie GO Station Area through a combination of on-street and off-street pathways, as well as pedestrian crossings; and,
 - » Subject to agreement from Metrolinx, incorporate two pedestrian crossings over or under the Stouffville GO Rail Corridor, including:
 - » One pedestrian crossing, situated at the eastern termination of Local Street 10, in the North Precinct; and,
 - » One pedestrian crossing, situated at the eastern termination of Minor Collector Road 7, in the South Precinct.

Gateways and Placemaking Opportunities

- » It is recommended that the MRMJSP be planned to:
 - » Include Gateways at the intersection of Major Mackenzie Drive East and Markham Road, as well as the intersection of 16th Avenue and Markham Road;
 - » Include Placemaking opportunities throughout the MRMJSP Area, characterized by major intersection and landmark features;
 - » Ensure that buildings and public realm features at Gateway locations make a significant architectural contribution to the character and identity of the MRMJSP Area, while respecting the immediate context and creating a distinct built form, appearance or landmark feature;
 - » Ensure that buildings and public realm features at Gateway locations respond to their prominent location, framing and orienting views toward adjacent streets, Public Parks and Open Spaces;
 - » Ensure the planning and design of Gateway locations is consistent with the recommendations of the Gateway Master Plan; and,
 - » Promote the creation of EcoMobility Hubs of activity at Gateway and Placemaking opportunity locations, inclusive of an appropriate mix of uses, public art, wayfinding elements, open spaces, and other placemaking features.

Parks, Open Spaces and Multi-Use Trail

- » It is recommended that the MRMJSP be planned to:
 - » Establish a minimum 1.5 hectare public park in the North Precinct, situated on the west side of Anderson Avenue, between the 'Greenway' and Mount Joy Creek to the north, Local Street 1 and Markham Road to the west, and Castlemore Avenue to the south. Integrate the Public park with the adjacent naturalized and piped watercourse associated with Mount Joy Creek. Provide a dedicated pedestrian crossing, across Anderson Avenue, between the Public Park and Potential School Site;
 - » Establish a minimum 0.75 hectare public park in the North Precinct, situated on the west side of Anderson Avenue, between Local Street 13 to the north and Minor Collector Street 8 to the south;
 - » Establish a minimum 0.4 hectare public park in the North Precinct, situated on the east side of Anderson Avenue, between Local Street 9 and Local Street 10;
 - » Establish a minimum 0.75 hectare public park in the North Precinct, situated on the north side of Local Street 1, between Markham Road and Mount Joy Creek;
 - » Establish a minimum 2.0 hectare public park in the North Precinct, situated on the west side of Minor Collector Street 2, between Castlemore Avenue and Minor Collector Street 1;
 - » Establish a minimum 3.0 hectare Public Park in the Central Precinct, situated on the west side of Minor Collector Street 2, between Castlemore Avenue to the north and Local Street 5 to the south;
- » Establish a minimum 0.3 hectare Public Park in the South Precinct, situated at the southeastern termination of the Pedestrian Mews, between Minor Collector Street 6 to the east and Local Street 6 to the south;
- » Establish a minimum 0.2 hectare Public Park in the South Precinct, situated on the south side of Local Street 6, between Markham Road and Minor Collector Street 6;
- » Establish a minimum 0.3 hectare Public Park in the South Precinct, situated on the south side of Minor Collector Street 7, between Markham Road and Local Street 7;
- » Establish a multi-use trail, situated along the west side of the Stouffville GO Rail Corridor, between Major Mackenzie Drive East to 16th Avenue. Design the multi-use trail to serve a range of users during all seasons, including but not limited to pedestrians, cyclists, and mobility devices. The multi-use trail should be coordinated with Regional ROW requirements where applicable;
- » Incorporate a Public Parks and Open Space network, comprised primarily of Community Parks, which provides for a variety of active and passive recreational uses, which are designed to optimize use of space, while meeting the needs of both existing and future residents, workers and visitors;
- » Incorporate protected cycling facilities within the Markham Road boulevards, between Major Mackenzie Drive East and 16th Avenue;

- » Establish direct and unobstructed active transportation connections between existing and planned protected cycling facilities and the multi-use trail, where appropriate;
- » Contribute to a net increase in the City of Markham's tree canopy to support achieving the 30% in the City's Trees for Tomorrow Program; and,
- » Apply Crime Prevention Through Environmental Design (CPTED) principles, including natural surveillance, natural access control, territorial reinforcement, maintenance and target hardening into the design of all Parks, Open spaces and Multi-Use Trails to promote safety and casual surveillance.

Affordable and Rental Housing

- » It is recommended that the MRMJSP be planned to:
 - » Support the City of Markham's Draft Affordable and Rental Housing Strategy, by encouraging a range of housing and tenure types within the MRMJSP Area, including:
 - » A range of unit types, including apartments, townhouses and other housing forms;
 - » A diversity of unit sizes, including accommodations for singles, couples, families, and other housing arrangements;
 - » Encourage inclusion of 35% affordable housing within the Mount Joy GO Station MTSA, and 25% across the rest of the MRMJSP Area in accordance with Policies 2.3.40 and 2.3.41 in the York Regional Official Plan;
 - » Encourage inclusion of 35% affordable housing within a MTSA associated the GO Rail Station subject to future study at Major Mackenzie Drive East, at the time of its approval, in accordance with Policy 2.3.41 in the York Regional Official Plan;
 - » Require affordable housing within the MTSA area in accordance with Regulation 232/18 of the Planning Act, following the adoption of Inclusionary Zoning policies within the YROP and Markham OP;
 - » Encourage quick implementation of Inclusionary Zoning in MTSA's;
 - » Consider minor increases in heights, at the discretion of the City, and subject to appropriate studies to permit affordable housing;
 - » Encourage the City, at its discretion, to provide incentives to support the provision of affordable units, and
 - » Encourage development proponents to seek partnerships with affordable housing providers to include units in proposed developments.

Transportation

Overview

HDR prepared an Analysis and Recommendations Report, to inform the preparation of the MRMJSP from a transportation perspective. Based on the yields anticipated in the Demonstration Plan and a fine-grained grid street network, a detailed analysis was conducted to identify critical infrastructure and service requirements including the street network, intersection controls, lane configurations, and transit services.

It is noted that the feasibility review of the GO Station at Major Mackenzie Drive East preceded the release of the 2022 York Region Official Plan, which brought lands north of Major Mackenzie Drive East into the urban boundary.

Technical Recommendations

Intersection Lane Configurations and Controls

A detailed analysis of intersection operations was conducted using Synchro software to identify lane configuration recommendations. Signal warrant analysis was conducted as per Ontario Traffic Manual Book 12: Traffic Signals (OTM Book 12), using the estimated future peak hour traffic volumes to inform intersection controls.

Key recommendations include:

- » Providing one through lane northbound and southbound on Markham Road, between Major Mackenzie Drive East and 16th Avenue;
- » Considering dedicated northbound and southbound right-turn lanes at the intersection of 16th Avenue and Markham Road;

- » Providing nine new signalized intersections throughout the MRMJSP Area, in addition to the six signalized intersections that currently exist.

Transit Network

To understand transit service requirements for the Study Area, transit trips generated by the MRMJSP area for the high non-auto mode share scenario were distributed to each transit route proportionally based on the total boarding and alighting of stops within the MRMJSP Area, including YRT, TTC and GO train services which currently serve the Study Area.

Key recommendations include:

- » Introducing 15 to 20-minute service on Major Mackenzie Drive East (east of Markham Road), Markham Road, Bur Oak Avenue and 16th Avenue;
- » Introducing 10-minute rapid transit service on Major Mackenzie East (west of Markham Road);
- » Consolidating the Bur Oak Express with Route 18;
- » Modifying Route 41 (Markham Local) and Route 301 (Markham Express) to on-demand service;
- » Additional coordination with York Region Transit, to discuss future transit plans to support growth in the MRMJSP Area; and,
- » Additional coordination with Metrolinx, to identify opportunities to support the anticipated growth in the Secondary Plan area, including accounting for appropriate population and employment growth in future Metrolinx ridership forecasting analysis and service planning.

Active Transportation

The recommended fine-grained grid street network provides greater connectivity for active transportation. Accommodating high quality pedestrian and cycling facilities requires right-of-way protection based on street functional classification. Key opportunities to address major barriers were also identified.

Key recommendations include:

- » Providing sidewalks on both sides of all public roadways, including major collector roads, minor collector roads and local roads;
- » Providing protected, separated cycling facilities, where feasible, designed for cyclists of all ages and abilities; and,
- » Providing four new signalized intersections on Markham Road to create new active transportation crossing opportunities
- » Providing two new active transportation connections across the railway, to improve connectivity.

Road Classification and Street Right-of-Way Widths

As per the 2014 Markham Official Plan, one of the key goals in street design is to “create roadway and associated right-of-way designs that better balance mobility needs between modes, increase safety for all users and result in streets that contribute to the vibrancy and attractiveness of the urban communities they serve.”

Incorporating the traffic, active transportation and transit recommendations, street cross-section guidance for major collector, minor collector and local roads were identified.

Key recommendations include:

- » Creating roadway and associated right-of-way designs that better balance mobility needs between modes, increase safety for all users and result in streets that contribute to the vibrancy and attractiveness of the MRMJSP Area;
- » Transforming Markham Road into a place for people similar to Main Street Markham south of 16th Avenue, rather than a high capacity arterial for automobiles. Based on the findings of the transportation study, there is an opportunity to modify the existing cross-section from four vehicle thru-traffic lanes to two, enabling the curb lanes to prioritize on-street parking or transit priority lanes;
- » Implementing a 26 metre right-of-way on Bur Oak Avenue, with protected cycling lanes subject to further study to understand impacts beyond the MRMJSP Area;
- » Implementing 23 metre right-of-way widths for Minor Collector Roads including Castlemore Avenue, Edward Jeffreys Avenue, and new roads proposed in the Demonstration Plan, which incorporate two traffic lanes in each direction, a 2.5 metre parking lane on one side, and separated cycling facilities or a multi-use pathway on both sides of the street; and,
- » Implementing 18.5 metre right-of-way widths on Local Roads, with sidewalks on both sides of the street.

EcoMobility Hubs

EcoMobility Hubs are multi-modal one-stop hubs to facilitate smart and easy access to mobility services such as car sharing, ride sharing and bike sharing. These hubs may vary in scale from major transit station areas to smaller-scale community-based hubs. Depending on the scale, the hub may include bus stops, dedicated car share parking spaces with charging stations, parking lay-bys for ride sharing, bike share stations, comfortable and safe waiting areas with displays for real-time data for all modes, benches, open space, free Wi-Fi, wayfinding information, and retail support.

Key recommendations include:

- » Providing transit station EcoMobility Hubs at Mount Joy GO Station and the potential Major Mackenzie GO Station;
- » Providing bike share EcoMobility Hubs at key intersections throughout, and adjacent to, the MRMJSP Area; and,
- » The hubs may be located within existing unused street right-of-way, within a municipally owned park or open space, or integrated on publicly accessible private lands within a development, subject to landowner agreements.

Major Mackenzie GO Station

As noted, the GO Rail Station subject to further study at Major Mackenzie Drive East, would benefit the development of the MRMJSP Area by providing a secondary major transit hub at the northern boundary and relieve park and ride traffic at the Mount Joy GO Station.

Key recommendations include:

- » Following the completion of the MRMJSP, City staff should engage in further discussions with Metrolinx to undertake ridership forecasting analysis and ultimately an Initial Business Case (IBC) analysis. A positive outcome in the IBC will then be required to advance the planning for this potential GO station; and,
- » Seeking out partnership(s) with private landowners, as the proponent driving either or both ridership forecasts and the IBC, which would be required to fund the Metrolinx studies noted.

Road-Rail Grade Separations

With Metrolinx's plans for all-day two-way GO train service, grade separations of the existing level crossings of Castlemore Avenue, Bur Oak Avenue and 16th Avenue will greatly reduce the risk of collisions between trains and roadway users. Transport Canada guidance recommends that a grade separation is considered based upon the total cross-product of the number of trains and roadway users anticipated in the future, called an exposure index.

Key recommendations include:

- » Recognizing the benefits of grade separations, protect for Metrolinx's required 30 metre setback of driveways or roadways from the rail corridor on Castlemore Avenue, Bur Oak Avenue and 16th Avenue; and
- » Engaging Metrolinx and York Region to discuss further study required to initiate grade separation projects recognizing the increased exposure index at the existing level crossings due to the intensification of the MRMJSP Area.

Policy Guidance

Transportation Network, Mobility Services and Curbside Management

Transportation Network

- » It is recommended that the MRMJSP be planned to:
 - » Provide alternative north-south routes to Markham Road, and expand the transportation network along either side of Markham Road;
 - » Design Local Streets to maintain lower travel speeds;
 - » Incorporate an active transportation network that seamlessly connects destinations and communities, including:
 - » The Mount Joy and potential Major Mackenzie GO Station Sites;
 - » The 'Greenway' System;
 - » Parks and Open Spaces; and
 - » The future School sites.
 - » Incorporate an active transportation network that seamlessly connects the MRMJSP Area to:
 - » Future potential trail systems along Little Rouge Creek Valley Corridor to the north;
 - » Greensborough neighbourhood to the east;
 - » Markham Village HCD to the south; and
 - » Wismer Commons neighbourhood to the west.
 - » Promote the separation of transportation modes to enhance safety and accessibility;
- » Encourage the development of an integrated rail safety barrier along between the MRMJSP Area and the Stouffville GO Rail Corridor;
- » Consider road rail grade separations, where appropriate, through redevelopment of lands adjacent to the Stouffville GO Rail Corridor;
- » Incorporate transit plazas, generous public boulevards, and a combination of street-based and lay-by passenger pick-up and drop-off (PPUDO) facilities, to distribute and minimize the impacts of station-based pedestrian and vehicular traffic;
- » Incorporate EcoMobility Hubs, which provide convenient and dedicated access to parking and charging infrastructure associated with a variety of small-scale mobility options including bicycles, e-bikes, and e-scooters in proximity to higher-order transit; and,
- » Incorporate Vision Zero principles, which apply an ethical, responsible, and safety-based lens to the design and implementation of streetscapes and the public realm, in order to prevent collisions and minimize the risk of resulting injuries and death to vulnerable users, including pedestrians and cyclists.

Parking

- » It is recommended that the MRMJSP be planned to:
 - » Provide electric vehicle charging stations in parking lots;
 - » Integrate progressive parking standards which accommodate car-sharing and compact vehicle formats; and,

- » Provide underground parking facilities which are designed for planned obsolescence, adaptive re-use and repurposing.

GO Rail Station Subject to Further Study at Major Mackenzie Drive East

- » It is recommended that:
 - » An Initial Business Case, per Metrolinx's Market Driven Strategy, be initiated to support a station in this location;
 - » The City seek partners to develop the new station;
 - » Support and require transit supportive densities on the south side of Major Mackenzie Drive in the MRMJSP Area;
 - » If a new station is approved by Metrolinx, that it be identified as an additional MTSA by York Region for inclusion in the YROP and Markham OP; and,
 - » Until such a time that the GO Station at Major Mackenzie Drive East is approved and the associated MTSA boundaries are established, density be focused within the Mount Joy GO Station MTSA.

Municipal Servicing

Overview

Building on the municipal servicing analysis completed in earlier phases of the Study, Counterpoint Engineering prepared a Municipal Servicing Analysis and Recommendations Report that reviewed the emerging demonstration plan, incorporated the development yields in the assessment of the existing servicing systems, and discussed other considerations including the GO Rail Station subject to further study at Major Mackenzie Drive East and the preferred alignment for Mount Joy Creek. The report identified recommended improvements to municipal watermain, sanitary and stormwater infrastructure to accommodate anticipated growth within the MRMJSP Area. It is noted that as of the writing of this report, Counterpoint's final Servicing Study is being reviewed by the TRCA and the City of Markham. As such, the recommendations included herein are subject to confirmation.

Technical Recommendations

Based on the findings of the detailed municipal servicing analysis, a set of municipal servicing recommendations were prepared to inform the MRMJSP.

Watermains

An infrastructure network of 300mm watermains is proposed to service the MRMJSP Area's new public road network and Development Blocks. The proposed infrastructure will provide the MRMJSP Area with both Fire Protection and Domestic water needs. The network will be connected to the existing City of Markham infrastructure, supplied by York Region.

Key recommendations include:

- » Increasing approximately 100 metres of the existing 150 millimetre watermain along Castlemore Avenue, east of the Metrolinx Corridor, to 300 millimetres prior to intensification along Castlemore Avenue;
- » Installing infrastructure as private developments proceed and new right-of-ways are required. As part of the required Functional Servicing Report proponents should be required to evaluate the existing system and proposed watermain addition with each application; and,
- » City of Markham to ensure the planning model is kept up to date as applications proceed.

Sanitary Sewers

The sanitary infrastructure within the MRMJSP Area conveys wastewater flows through local infrastructure and trunk sewers to the larger YDSS in two locations, 16th Avenue west of Markham Road, and Highway 7 east of Markham Road. The larger YDSS is operated by York Region. New infrastructure along proposed public roads, existing local sewer replacements, and a combination of both are required to accommodate the full build out of the MRMJSP Area.

Key recommendations include:

- » Installing flow monitoring within the existing West drainage system to confirm design flows. It is estimated that the existing system can accommodate approximately 9,000 additional people, or 3,033 residential units based on design criteria. However, flow monitoring should be installed to determine the appropriate threshold as actual flows may differ from design flows. This may

allow for the City to accommodate further growth before needing to invest in the preferred ultimate solution;

- » Completion of an Environmental Assessment to finalize the preferred Sanitary Servicing Option through evaluation of the proposed servicing alternatives based on operational and approved requirements. Both options will result in an overall improvement to the existing level of service for the downstream East drainage boundary. The potential diversion of the existing east drainage boundary to the 16th Avenue YDSS will reduce the contributing flows to the east catchment which is experiencing surcharging in the existing conditions. This reduction does not eliminate the existing surcharging condition and it is recommended that the City of Markham study the necessary improvements to the overall eastern drainage boundary; and,
- » Consideration for the design and construction of the east-west portion of Option 1 along 16th Avenue as an interim intercept for the easting East catchment. It could later be extended north along Markham Road to facilitate the full build-out or remain in place and western outlet improvements could be made as outlined in Option 2. This portion is required prior to any intensification within the east catchment.

Stormwater Management

The MRMJSP Area is serviced by two existing Stormwater Management Facilities, as well as Mount Joy Creek. Internal to the site storm sewers convey minor system drainage to one of the two ponds for the majority of the site area, while the remaining areas drain to various portion of Mount Joy Creek uncontrolled.

Stormwater management for the site has been evaluated to provide a reduction of contributing flows to the existing ponds through on-site storage at the development block level consistent with intensification development.

Key recommendations include:

- » Requiring proponents to meet a series of design criteria for Water Quality, Quantity Control, Water Balance, and Erosion Control for all future developments;
- » Undertaking additional analysis of the Mount Joy Creek realignment and floodplain as coordinated development group for the portion east of Markham Road, to the southern limit of the Olive Branch Community Center. As independent development applications proceed for the developments south of the Olive Branch CC north of Bur Oak Avenue the re-alignment of Mount Joy Creek will need to be completed;
- » Ensuring local storm sewers are upgraded, prior to development in key locations, to eliminate existing and future surcharging conditions;
- » Evaluating and maintaining existing ponds, as required, to ensure they continue to operate as per their original design intent; and,
- » Exploring opportunities to upgrade existing stormwater management facilities, including additional quantity and quality controls.

Mount Joy Creek

Mount Joy Creek traverses the MRMJSP Area from Northwest to Southeast through a variety of open channel and enclosed pipe sections. The Demonstration Plan proposes re-aligning a significant portion of the open channel adjacent the rail corridor with a short-enclosed section traversing from west to east near the north limit of the Study Area.

Key recommendations include:

- » Ensuring that development applications within the Mount Joy Creek regulated area incorporate a detailed channel and floodplain assessment and approval through consultation with the TRCA and their updated Mount Joy Creek model;
- » Developers east of Markham Road to the south limit of the Olive Branch Community Centre are anticipated to enter into a Developers Group to facilitate the relocation of the existing Mount Joy Channel to the east limit of the MRMJSP.

Policy Guidance

Water and Wastewater

- » It is recommended that the MRMJSP be planned to:
 - » Ensure all servicing and utility infrastructure complies with City of Markham, and York Region development standards, and that adequate servicing is available to support the intensification that is envisioned within the MRMJSP Area.

Stormwater Management

- » It is recommended that the MRMJSP be planned to:
 - » Comply with the City of Markham and TRCA stormwater management criteria;
 - » Protect water quality and aquatic wildlife;
 - » Provide water quality, quantity, water balance and erosion controls for key hydrologic features; and,
 - » Utilize Low Impact Development Infrastructure to provide overall stormwater management functions for the area.

Phasing and Implementation

Overview

The following section summarizes key phasing and implementation Policy Guidance and Recommendations, to inform the preparation of the MRMJSP. Specifically, direction is provided with respect to the coordination of development, existing lawful uses, conveyance of lands, landowner agreements, development phasing plans, zoning, future studies, and other considerations.

Policy Guidance & Recommendations

Coordination of Development

- » It is recommended that:
 - » Development be coordinated to ensure that growth is supported by the appropriate level of infrastructure, services, and facilities;
 - » Each development block be planned comprehensively. In some cases, this may require coordination between multiple landowners;
 - » Applicants be required to demonstrate, to the satisfaction of the City, that development achieves the intended land use, built form, density and other provisions of the MRMJSP; and,
 - » The sequencing and phasing of development be based on the timing and implementation of recommended infrastructure upgrades or implementation of new infrastructure.

Existing Lawful Uses

- » It is recommended that:
 - » Land uses, buildings and structures which legally exist prior to the adoption of the Secondary

- » Plan, be permitted to continue. However, they are ultimately intended to be redeveloped in conformity with the MRMJSP;
- » Enlargements, extensions, additions and alterations of existing lawful buildings and structures be permitted without amendment to the MRMJSP; and,
- » Replacement and repair of existing lawful buildings and structures be permitted without amendment to the MRMJSP.

Conveyance of Lands

- » It is recommended that:
 - » As a condition of development approval, where lands have been identified as being required for public benefit, or are necessary for the securement of infrastructure, community facilities or parkland, such lands be dedicated through conveyance to the City of Markham;
 - » All development requiring conveyance of land for the purposes outlined above must proceed by way of a plan of subdivision, plan of condominium, or consent;
 - » If a development involves more than one phase, the plan of subdivision, plan of condominium, or consent will be required at the first phase of development; and,
 - » Alternatively, the City of Markham may determine that the plan of subdivision, plan of condominium, or consent is not required where the City and applicant agree to the conveyance of land as a condition of development approval and executed through an agreement entered into at the time of the Rezoning and/or Site Plan Approval process.

Landowner Agreements

- » It is recommended that
 - » As a condition of development approval, applicants enter into one or more Landowner Agreements to address cost sharing issues associated with the provision of new infrastructure and services (e.g., reconfiguration of Mount Joy Creek, parks, school sites, etc.), and to confirm floodplain limits associated with Mount Joy Creek.

Development Phasing Plans

- » It is recommended that:
 - » As a condition of development approval for multi-phased development, applicants be required to submit a development phasing plan. The Development Phasing Plan is recommended to establish the timing and delivery of key internal and external infrastructure including but not limited to storm sewer pipes, stormwater management facilities, water and waste water distribution systems, roads as well as community services such as parks, schools and trails for each phase of development to be implemented through development approvals;
 - » The development phasing plan shall address population and employment projections linked to each phase of development, the sequencing of development based on an appropriate hierarchy of infrastructure, services and amenities, and key benchmarks for progressing to phases of development; and,
 - » The development phasing plan be prepared by the applicant, in consultation with the City

of Markham and York Region, in a manner consistent with the required supporting studies, and applicable Provincial, Regional, City and TRCA policies. In particular, the development phasing plan should address the requirements of Section 10.1.2.2 of the City of Markham Official Plan.

Functional Servicing Reports

- » It is recommended that:
 - » Through the development process, applicants provide a Functional Servicing Report addressing the servicing requirements for the proposed development as per the City of Markham Engineering Standards. The FSR's are to have consideration for all recent development applications and the overall ultimate MJSP re-development.

Implementation Tools

Zoning

- » It is recommended that:
 - » To implement the MRMJSP, City Council enact amendments to the City of Markham's Zoning By-law. In the process of doing so, repeal existing and in force Zoning By-laws, establishing a consolidated Zoning By-law for the MRMJSP Area;
 - » Inclusionary Zoning be implemented within the Mount Joy MTSA to require the provision of affordable housing in accordance with Regulation 232/18 of the Planning Act;

- » A Holding Provision be implemented on the lands identified for the future School site, as well as lands south of Major Mackenzie Drive East, subject to further study of the feasibility of the potential Major Mackenzie GO Station; and,
- » A Holding Provision be implemented on other lands, which are considered premature or inappropriate for development for any one or more of the following reasons:
 - » A concept Site Plan and/or Streetscaping and Landscape Plan has not been submitted and finalized to the City's satisfaction;
 - » Public infrastructure and community facilities, such as sanitary sewers, water supply, stormwater management facilities, parks, community and recreation facilities, schools, and libraries are insufficient to serve the proposed development;
 - » The existing street network does not have the capacity or is inadequately designed for the anticipated traffic and/or the access requirements;
 - » Development relies upon other matters occurring first, such as the consolidation of land ownership and/or the finalization of a Landowner Agreement regarding the development and funding of infrastructure and services; and/or,
 - » Technical studies are required on matters that City Council considers necessary.

Community Planning Permit System

- » It is recommended that the City of Markham:
 - » Consider implementing a community planning permit system to streamline planning approvals on lands in proximity to the Mount Joy and potential Major Mackenzie GO Stations.

Environmental Assessments

- » It is recommended that the City of Markham:
 - » Initiate separate Environmental Assessments for the redesign of Markham Road and the ultimate sanitary servicing solution; and,
 - » Initiate an Environmental Assessment for the realignment of Mount Joy Creek, in order to inform the guidance and strategy to its implementation.

Community Improvement Plan and Business Improvement Area

- » It is recommended that the City of Markham:
 - » Introduce a Business Improvement Area for the MRMJSP Area, centred on the length of Markham Road and connections to Mount Joy GO Station; and,
 - » Introduce a Community Improvement Plan to incentivize redevelopment and affordable housing to meet the objectives of the MRMJSP.

Urban Design Guidelines

- » It is recommended that the City of Markham:
 - » Prepare a comprehensive set of Urban Design Guidelines to guide the design of built form, the public realm, and streetscapes throughout the MRMJSP Area. The Urban Design Guidelines would serve as a tool to assist City of Markham Staff in the review and evaluation of development applications within the MRMJSP Area, and would be used to help inform advisement by the City of Markham Urban Design Review Panel;
 - » Utilize international design competitions as a means of ensuring a high quality of design associated with significant public assets and infrastructure, including but not limited to GO Station lands, pedestrian crossings, public parks, and community infrastructure and facilities;
 - » Introduce a boulevard design pilot project for Markham Road; and,
 - » Prepare alternative design and engineering standards, including an alternative cross-section, to inform the development of Green Streets.

Other Implementation Tools

- » It is recommended that the City of Markham:
 - » Establish an interim development plan for the Mount Joy GO Station Area, transitioning the area into a mixed use destination in advance of development through the implementation of tools such as pilot projects and tactical urbanism projects;
 - » Incentivize redevelopment of the Mount Joy GO Station Area, as a means of catalyzing future development permissions, creating a destination, and reducing required parking ratios;

- » Consider development charges for public realm elements to address costs associated with streetscape improvements, pedestrian infrastructure and amenities, open spaces, pedestrian crossing, and civic elements including wayfinding, signage, public art, and gateway features;

Implementation Processes

- » It is recommended that the City of Markham:
 - » Accelerate the timing, sequencing and coordination of capital infrastructure projects which are necessary to ensure the long-term success of the MRMJSP Area, including:
 - » The Donald Cousens Parkway Extension to Highway 48;
 - » The Highway 48 and Donald Cousens Parkway intersection;
 - » Required grade separation along the length of the Stouffville GO Rail Corridor at Major Mackenzie Drive East, Bur Oak Avenue and 16th Avenue subject to further Environmental Assessment study in coordination with Metrolinx, York Region and adjacent landowners;
 - » Potential grade separation along the length of the Stouffville GO Rail Corridor at Castlemore Avenue subject to further Environmental Assessment study in coordination with Metrolinx and adjacent landowners; and,
 - » Pedestrian crossings over or under the Stouffville GO Rail Corridor.

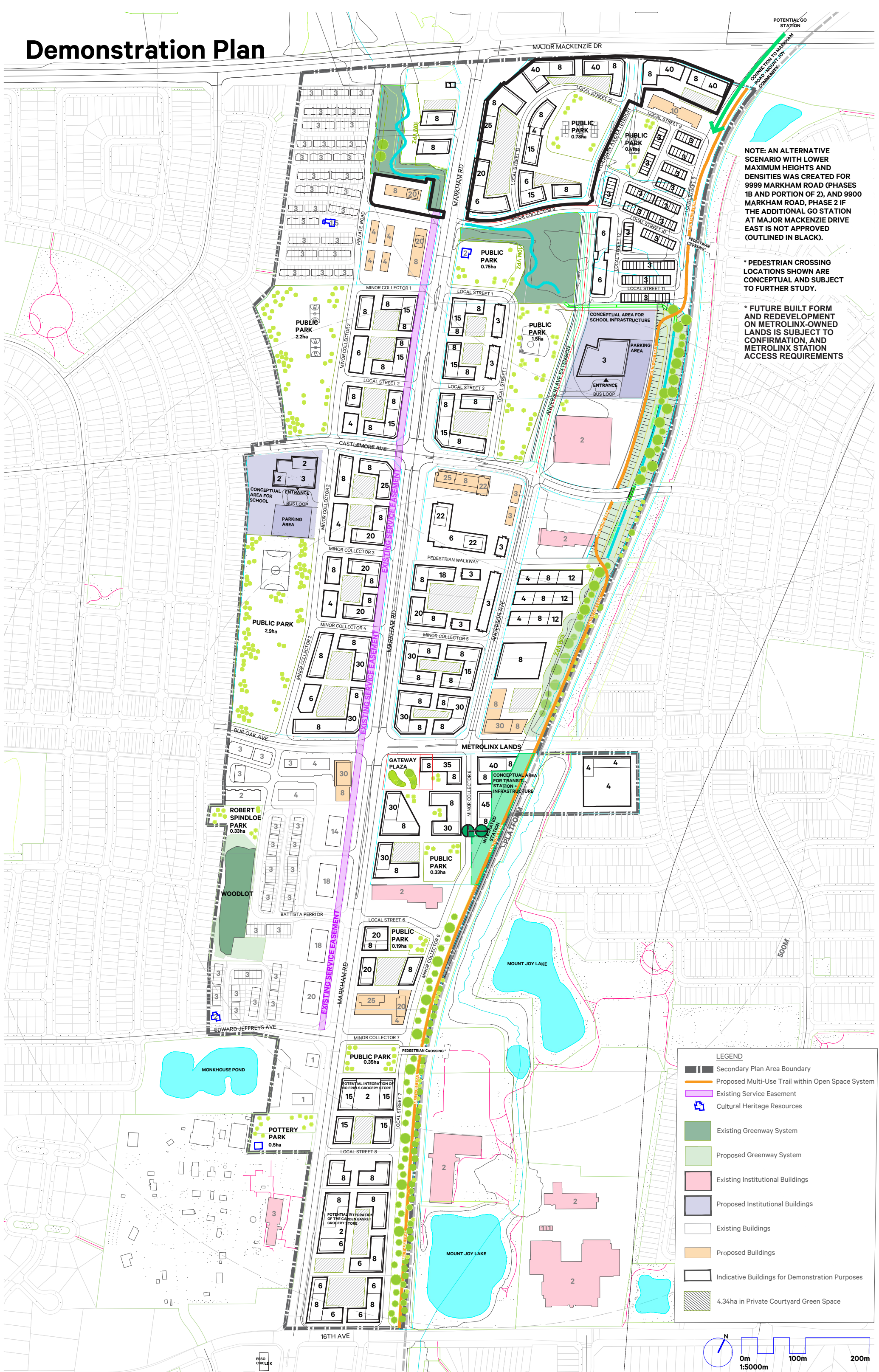
- » Continue coordination with Metrolinx, and engage potential developer(s) regarding a future transit- supportive community around the Mount Joy GO Station and potential Major Mackenzie GO Station;
- » Coordinate with York Region and Metrolinx regarding benefits and implications of a potential Major Mackenzie GO Station;
- » Coordinate with Metrolinx, TRCA and other stakeholders regarding the realignment of Mount Joy Creek;
- » Participate in ongoing engagement with York Region to encourage the implementation of the Donald Cousens Parkway Extension to Highway 48; and,
- » Work with Parks Canada to enhance access to Rouge National Urban Park.

Conclusion and Next Steps

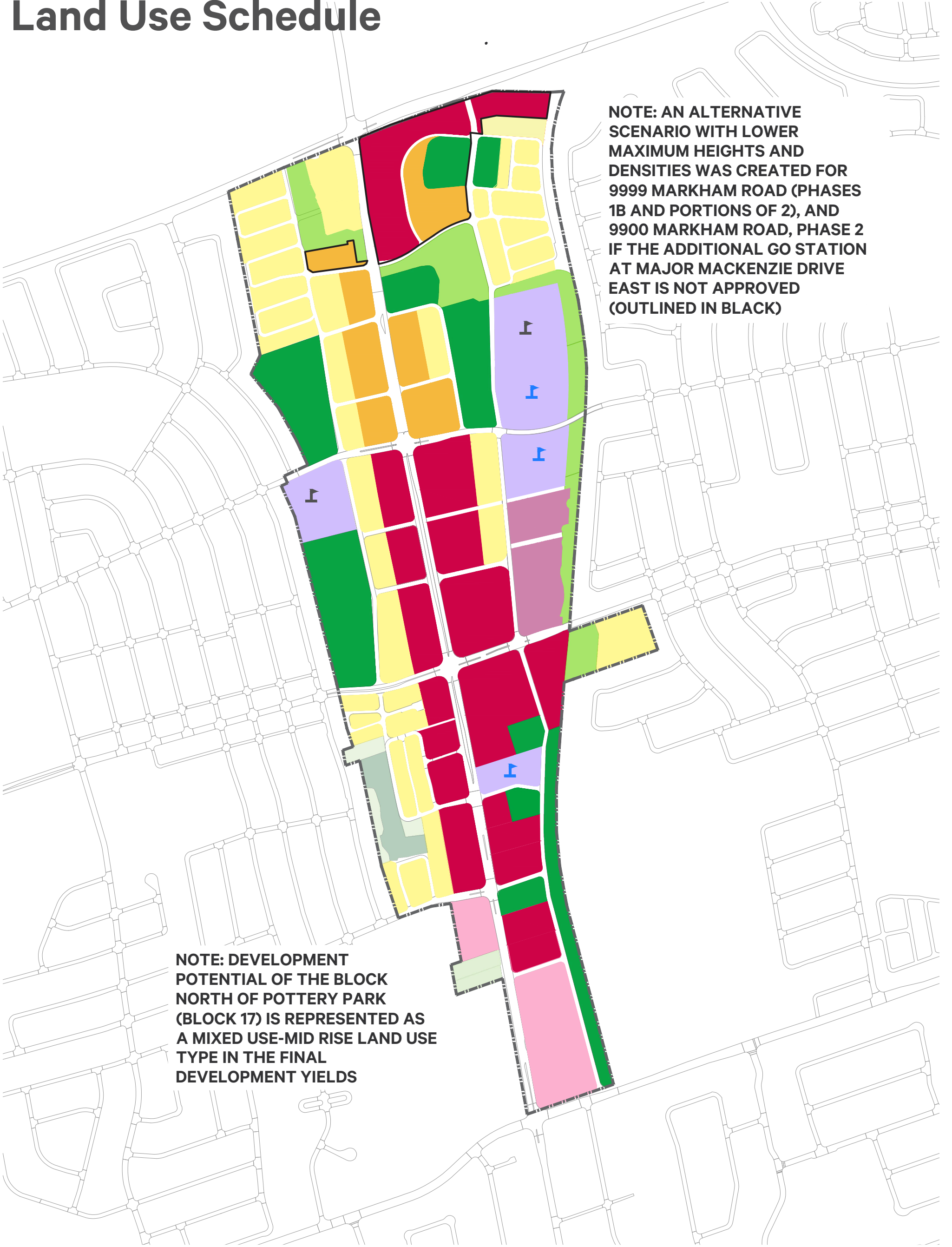
This report serves as the culmination of Phases 1 through 6 of the Study and will inform the preparation of the Markham Road – MountJoy Secondary Plan. These recommendations and directions will also inform additional studies in support of the potential GO Station at Major Mackenzie Drive East.

Appendix 1 - Final Demonstration Plan and Schedules

Demonstration Plan



Land Use Schedule



NOTE: AN ALTERNATIVE SCENARIO WITH LOWER MAXIMUM HEIGHTS AND DENSITIES WAS CREATED FOR 9999 MARKHAM ROAD (PHASES 1B AND PORTIONS OF 2), AND 9900 MARKHAM ROAD, PHASE 2 IF THE ADDITIONAL GO STATION AT MAJOR MACKENZIE DRIVE EAST IS NOT APPROVED (OUTLINED IN BLACK)

NOTE: DEVELOPMENT POTENTIAL OF THE BLOCK NORTH OF POTTERY PARK (BLOCK 17) IS REPRESENTED AS A MIXED USE-MID RISE LAND USE TYPE IN THE FINAL DEVELOPMENT YIELDS

LEGEND

- | | | | |
|--|-------------------------------|--|-----------------------------|
| | Secondary Plan Area Boundary | | Proposed Parks & Open Space |
| | Mixed Use High Rise | | Existing Parks |
| | Mixed Use Mid Rise | | Woodlot |
| | Residential High Rise | | Greenway System |
| | Residential Mid Rise | | Potential School |
| | Mixed Use Employment Priority | | Existing Places of Worship |
| | Community/Institutional | | |

Date: April 2023



Land Use Schedule Alternative Scenario

NOTE: AN ALTERNATIVE SCENARIO WITH LOWER MAXIMUM HEIGHTS AND DENSITIES WAS CREATED FOR 9999 MARKHAM ROAD (PHASES 1B AND PORTIONS OF 2), AND 9900 MARKHAM ROAD, PHASE 2 IF THE ADDITIONAL GO STATION AT MAJOR MACKENZIE DRIVE EAST IS NOT APPROVED (OUTLINED IN BLACK)

NOTE: DEVELOPMENT POTENTIAL OF THE BLOCK NORTH OF POTTERY PARK (BLOCK 17) IS REPRESENTED AS A MIXED USE-MID RISE LAND USE TYPE IN THE FINAL DEVELOPMENT YIELDS

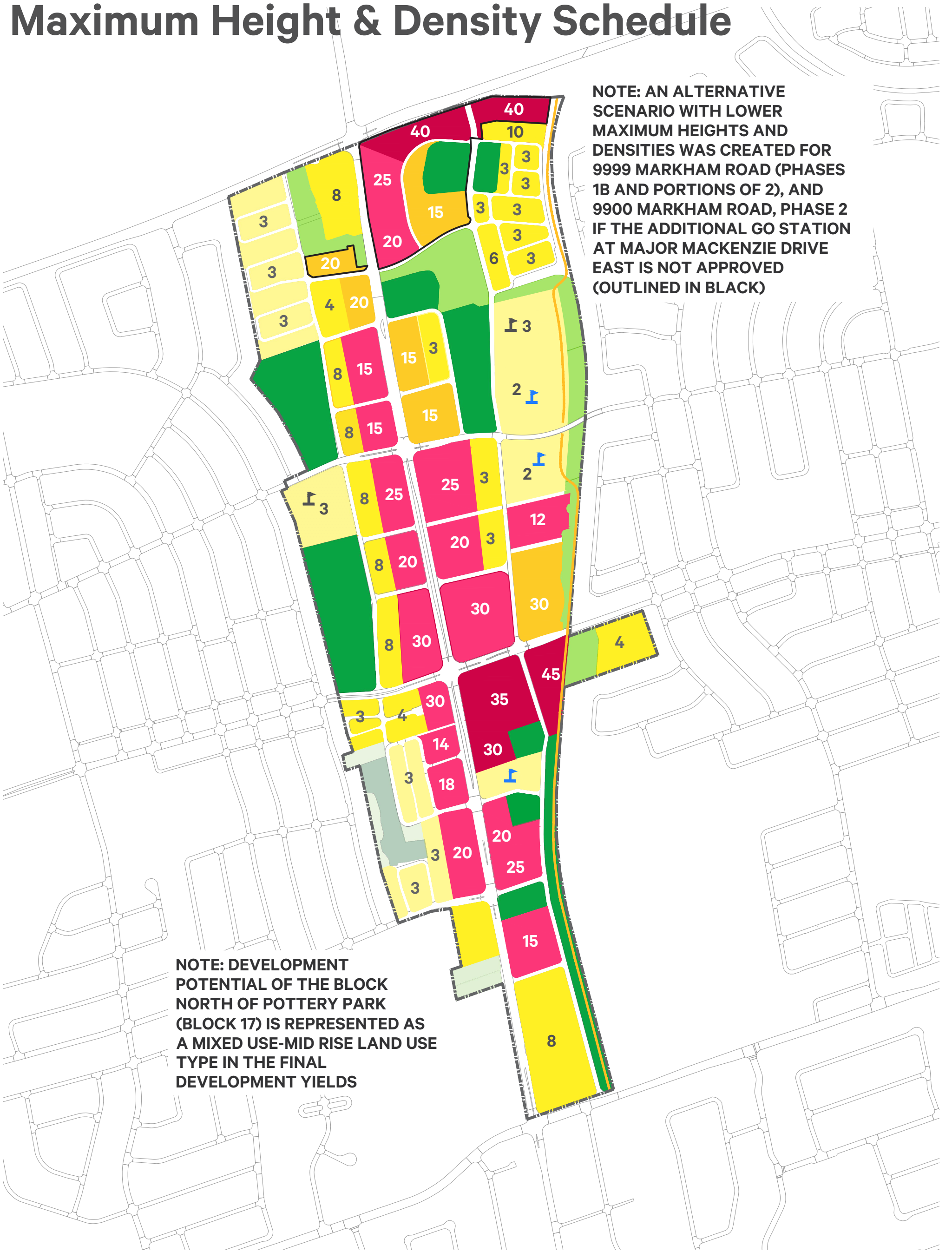
LEGEND

- Secondary Plan Area Boundary
- Mixed Use High Rise
- Mixed Use Mid Rise
- Residential High Rise
- Residential Mid Rise
- Mixed Use Employment Priority
- Community/Institutional

- Proposed Parks & Open Space
- Existing Parks
- Woodlot
- Greenway System
- Potential School
- Existing Places of Worship

Date: April 2023

Maximum Height & Density Schedule



NOTE: AN ALTERNATIVE SCENARIO WITH LOWER MAXIMUM HEIGHTS AND DENSITIES WAS CREATED FOR 9999 MARKHAM ROAD (PHASES 1B AND PORTIONS OF 2), AND 9900 MARKHAM ROAD, PHASE 2 IF THE ADDITIONAL GO STATION AT MAJOR MACKENZIE DRIVE EAST IS NOT APPROVED (OUTLINED IN BLACK)

NOTE: DEVELOPMENT POTENTIAL OF THE BLOCK NORTH OF POTTERY PARK (BLOCK 17) IS REPRESENTED AS A MIXED USE-MID RISE LAND USE TYPE IN THE FINAL DEVELOPMENT YIELDS

Maximum Height & Density Schedule Alternative Scenario

NOTE: AN ALTERNATIVE SCENARIO WITH LOWER MAXIMUM HEIGHTS AND DENSITIES WAS CREATED FOR 9999 MARKHAM ROAD (PHASES 1B AND PORTIONS OF 2), AND 9900 MARKHAM ROAD, PHASE 2 IF THE ADDITIONAL GO STATION AT MAJOR MACKENZIE DRIVE EAST IS NOT APPROVED (OUTLINED IN BLACK)

NOTE: DEVELOPMENT POTENTIAL OF THE BLOCK NORTH OF POTTERY PARK (BLOCK 17) IS REPRESENTED AS A MIXED USE-MID RISE LAND USE TYPE IN THE FINAL DEVELOPMENT YIELDS

LEGEND

Secondary Plan Area

3-45 Maximum Heights (Storeys)

Proposed Parks & Open Space

Existing Park

Woodlot

Greenway System

Potential School

Existing Place of Worship

Maximum Block Density (FSI)

1.0

3.0

3.5

7.0

7.5

Date: April 2023

Open Space and Parks Schedule



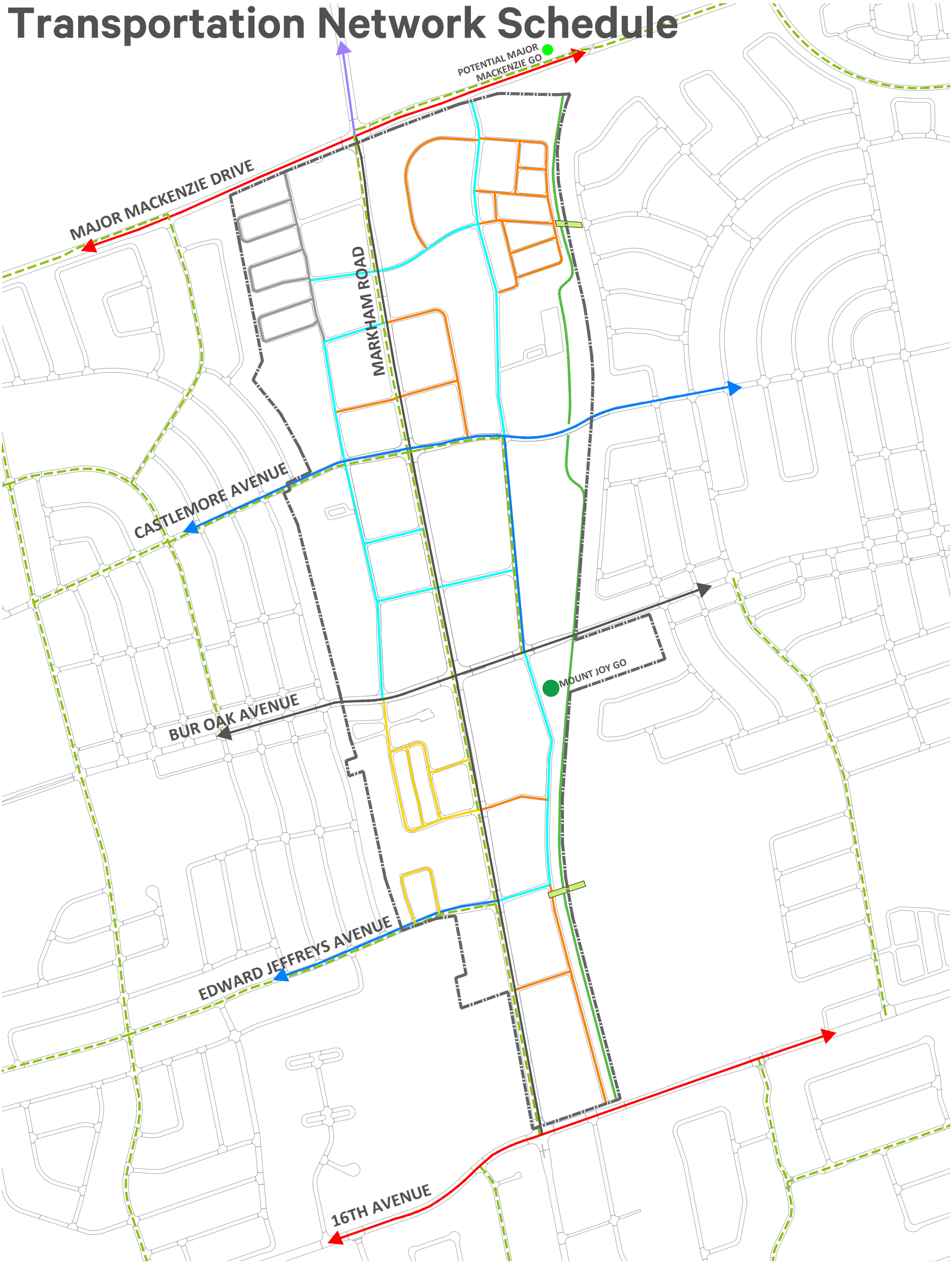
LEGEND

- Secondary Plan Area Boundary
- Existing Parks and Open Space
- Existing Woodlot
- Proposed Public Park
- Greenway System
- Open Space System
- Proposed MUT
- Piped Watercourse
- Watercourse

Date: April 2023



Transportation Network Schedule



LEGEND

- Secondary Plan Area Boundary
- Mount Joy GO Station (Existing)
- Major Mackenzie GO Station (Potential)
- Existing Provincial Highway
- Existing Arterial Road
- Existing Major Collector Road
- Existing Minor Collector Road
- Existing Private Road
- Existing Local Road
- Existing Active Transportation Network
- Proposed Minor Collector Road (23m)(including Private Roads)
- Proposed Local Road (18.5m)(including Private Roads)
- Multi-Use Trail
- Proposed Pedestrian Crossing

Date: April 2023

