North Maple Regional Park Master Plan

Volume 4: Transportation

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Introduction

This technical volume is part of the comprehensive planning documentation developed for the North Maple Regional Park (NMRP) Master Plan, an initiative undertaken by the City of Vaughan to transform 364 hectares (900 acres) of former landfills and open space into a nationally significant signature park and legacy project for future generations. The Master Plan establishes a framework for the park's ongoing and long-term development, programming, and management under three guiding principles: Restore, Engage, and Play.

The Master Plan suite consists of one public-facing master plan document and seven supporting technical volumes that provide detailed engineering, environmental, cultural, and operational guidance. This technical volume is one of seven discipline-specific documents that provide the technical foundation and implementation details necessary to realize the master plan vision.

While the Master Plan establishes the overall spatial structure, land use program, and experiential goals for the park, this technical volume provides the detailed strategies required to ensure that people can arrive at, move through, and experience the park safely, comfortably, and sustainably in a manner that respects the park's natural systems and landscape character.

This volume addresses external and internal access, multi-modal circulation networks, parking supply and management, accessibility, safety, and special event operations, ensuring that transportation infrastructure enhances rather than detracts from the park experience. Collectively, the policies, design guidelines, and recommendations contained in this volume provide a practical roadmap for implementing the Master Plan over time, aligning transportation investments with park development phasing, operational needs, and long-term sustainability objectives.

Key Circulation Strategies

Multi-modal Access

Key Strategies

The key strategies for multi-modal access to the North Maple Regional Park and for circulation within the Park include:

- Provide a multitude of walking and cycling options that are designed in a way to put the pedestrian and cyclist first.
- Plan for transit access that is convenient and comfortable.
- Allocate enough space for vehicles to maneuver to pick up and drop off locations and parking spaces while maintaining low vehicle speeds appropriate for the park.
- Manage parking supply to meet needs while maintaining the focus on non-vehicular travel.

Walking and Cycling

Description:

The North Maple Regional Park has been designed to be best experienced by walking, rolling, or cycling. Generous pedestrian walkways and bi-directional multi-use recreational trails via the Vaughan Super Trail or multi-modal separated pedestrian and cyclist facilities connect visitors

to all destinations within the park. Bi-directional trails are designed with buffers in between the two directions of travel to give the user a visual cue on the appropriate side to use.

In addition to walkways and multi-use recreational trails, there are:

- Pedestrian-only concrete walkways
- Pedestrian-only nature trails
- Pedestrian-specific boardwalks
- Bike trails

Key Elements:

- Design one-way and two-way cycle tracks and physically separated bicycle lanes in accordance with AODA Guidelines and other relevant standards. Apply a minimum width of 1.8 m plus a 0.5-1.0 m buffer for one-way separated lanes and 3.5 m plus a 0.5-1.0 m buffer for two-way separated lanes. For cycle tracks, provide a width of 2.0–2.5 m for one-way and 3.5–4.0 m for two-way facilities. The desired widths for In-boulevard multi-use paths for Low-to-moderate volume path (< 100 users/hour) is 3.5 m and more than 4.0 m for High-volume path (> 100 users/hour).
- Provide benches at regular intervals along pedestrian and multi-use facilities.
- Install directional signage at intersections of routes to alert users of key destinations, including washroom facilities.
- Include large maps at main intersections to provide context for the users of their location in relation to the whole park. The maps should identify multi-use facilities, transit stops, key destinations (including washroom facilities), and parking lots (both for bikes and vehicles).
- Provide safe pedestrian crossings at the future Teston Road Extension (preferably two).
- Park multi-use trails should:
    - Have a maximum running slope and cross slope of 1:20 (5%) and in no case greater than 1:10 (10%).
    - Any portion of the trail exceeding 5% running slope requires a ramp and is subject to ramp design requirements
    - Reflect the “Accessibility Design Guidelines for York Regional Forest Trails” & the “Everyday Guide to the York Regional Forest”.

Public Transit

Description:

A robust public transit and shuttle bus strategy is essential to improving accessibility and supporting sustainable visitation to the park. Effective transit connections and shuttle services will facilitate visitor access, minimize reliance on private vehicles, and enhance convenience, especially during peak visitation periods and special events.

Key Elements:

Bus stops exist today on Keele Street. A bus stop is proposed on Keele Street at the main access to the park. Ideally, a bus would enter the park and navigate Vaughan Cares Way and at least one stop would be provided on this road, as the Keele Street stop is more than 600 metres from some primary destinations along Vaughan Cares Way.

Once the Teston Road extension is constructed, a bus stop is planned on Teston Road to provide access to the park.

The City will need to work with York Region Transit to determine which locations can be served with transit stops. The installation of stops may be phased over time to coincide with the development of the park. A transit stop on Dufferin Street adjacent to the park would make transit a more viable option to access the park.

All public transit stops serving the park should:

- Be year-round and located within 100 m of main park accesses
- Have accessible infrastructure, safe pedestrian crossings, shelters, and clear signage
- Include wayfinding and schedule displays

Shuttle Bus Strategy

Description:

Shuttle bus service is part of the overall transit strategy but is expected to be most useful only for special events or peak visitation periods. The multimodal connections and available bike and vehicle parking are expected to meet the needs of typical visitors to the park.

The shuttle bus service would provide access from major transit stations like the Vaughan Metropolitan Centre subway and bus stations, Maple GO train station, and possible future transit stations, such as a potential Kirby GO train station.

Key Elements:

Shuttle bus stops within the park should:

- Have circulation routes to avoid congestion at main entrances and ensure dedicated pick-up and drop-off zones.
- Be located near major park amenities like event spaces, trailheads, and external stops at regional transit hubs or municipal parking lots.
- Include covered waiting areas with information on wayfinding and schedules.
- Be designed generally to accommodate general transit uses/needs to support future YRT services if required.

Off-site shuttle bus stops should be located to:

- Prioritize off-site locations with existing transit service and potential for shuttle connection, especially near GO stations or community facilities.

- Explore shared use of nearby municipal lots and partnerships with adjacent landowners for overflow and peak-period parking.
- Evaluate seasonal or event-based off-site parking strategies to reduce peak demand impacts on the park interior.

Internal Road Network

Description:

A well-planned internal road network supports the overall function of the park by organizing how people, goods, and services move through the site. There is only one vehicular road within the park (Vaughan Cares Way), and it reflects the park's unique context, supporting both operational needs and the visitor experience while maintaining the natural and recreational character of the landscape. Vaughan Cares Way has been designed to be minimally intrusive, clearly defined, and designed to blend with the park environment. This road balances accessibility with safety and environmental sensitivity, limiting vehicle use to essential purposes while providing connectivity to major recreational destinations in the northern portion of the site.

Key Elements:

The primary visitor vehicular access is from Keele Street to Vaughan Cares Way. This street connects to the major recreational activity destinations at the park, including the mixed-use sports track and field, sports dome, soccer fields, cricket pitch, events lawn, gardens, sports pavilion, and Wellness Village and gardens. From this road visitors can also access all other areas of the park by active modes of travel. This is a curvilinear street that lends itself to lower speeds to navigate its "horseshoe" shape. The street has been designed with modest 3.3m wide vehicle travel lanes, with one lane in each direction. The modest lane width and curvilinear design lend themselves to lower travel speeds yet accommodate emergency and service vehicles. Adjacent to the road is a multi-use recreational trail, with 3.0m provided in each direction, separated by a 0.5m buffer to help indicate the bi-directional nature of travel. This multi-use recreational trail is essentially as wide as the two vehicular travel lanes, showing the emphasis on active travel within the park.

- Speed limits should be monitored to ensure adherence to the recommended posted speed limit of 30 km/h. Raised crosswalks could be added to draw attention to pedestrian crossings and to act as a traffic calming measure. Any raised crosswalk would need to be designed to meet accessibility standards. Signage should be posted within the park that vehicles are to yield to anyone seeking to cross via a designated crosswalk.
- There exists today a strong gateway identity at the only vehicular access to the park on Keele Street. This is a full moves access and will be supplemented by a right in, right out access. Once Teston Road is extended, there is expected to be an access to a parking lot from the extension but not full vehicular access to the park. There are multiple other access points to Teston Road, but these are all planned for active modes and not vehicular modes.
- Teston Road is a York Regional road and the City should work with the Region to design the crossings along the stretch of road through the park. Due to the higher vehicular speeds and higher traffic volumes on Teston Road compared to Vaughan Cares Way, more visible infrastructure should be provided. A pedestrian crossover with pedestrian activated push buttons would be one suitable option. This would include flashing lights to alert drivers of pedestrians and the need to stop. A signalized crossing could also be required depending on the planned design.
- For Vaughan Cares Way, zebra crosswalks should be used with signage to indicate the crossing location to alert vehicle drivers of the presence of the crosswalk and possible people crossing. On Vaughan Cares Way, signage should be posted that vehicles must yield to pedestrians and cyclists in the crosswalks. Pedestrians and

cyclists should have the right-of-way when crossing at designated crossings within the park.

Service and emergency vehicles will use Vaughan Cares Way to access the park. Select routes will also be used by service and emergency vehicles to ensure access to all parts of the park, to maintain the landfill, and to maintain the park overall. These routes will only be used by emergency vehicles as needed, and for regular maintenance by park staff. The number of vehicles using the routes other than Vaughan Cares Way is expected to be minimal.

Accessibility and Safety

Description:

Ensuring accessibility and safety throughout the park enhances visitor comfort, convenience, and protection. Appropriate planning for accessible parking, clear wayfinding, and robust safety measures helps minimize potential conflicts and creates a safe environment for all park users, including pedestrians, cyclists, and emergency responders.

Key Elements:

Provide Accessible Parking and Drop-off Areas. Establish appropriately located accessible parking spaces, compliant with Vaughan parking standards for quantity and positioning. Clearly define convenient drop-off and pick-up zones, ensuring safe and direct routes between parking areas and park amenities.

Vaughan's Inclusive Design Standards provide guidelines for the provision of accessible parking spaces and passenger loading zones. Passenger loading zones are exterior passenger loading and drop-off zones where passengers travel from vehicles to a pedestrian area which provides an accessible route to a facility.

Accessible parking spaces and passenger loading zones are to be located as close as possible to the nearest accessible entrance/exit, or within 30 metres (maximum). The path of travel between accessible spaces and passenger loading zones and accessible entrances should not cross through a drive aisle. Pedestrians arriving from an accessible parking space or passenger loading zone should not have to travel behind parked vehicles or move along roadways (City of Vaughan Inclusive Design Standards, 2020, p. 57-61)

Enhance Safety Measures. Implement comprehensive safety strategies, including appropriate speed limits, enforcement measures, clear and consistent signage, and sightline improvements at intersections and curves. Incorporate specific pedestrian and cyclist safety measures at road crossings, and ensure effective emergency vehicle access throughout the park.

Recommendations:

- Locate accessible parking and passenger loading zones near entrances and high-use amenities with direct, barrier-free paths and tactile cues.
- Incorporate lighting, signage, and surface cues (color contrast, textured paving) in drop-off zones for safety and orientation.
- Maintain visual sightlines at curves and intersections by managing vegetation and structure placement.

Design Guidelines

Description:

Establishing clear and consistent design guidelines for park infrastructure ensures a visually cohesive, safe, and environmentally responsible landscape. Guidelines for surface treatments, curbing, and paving will support park aesthetics, sustainability, durability, and ease of maintenance.

Key Elements:

Surface Treatments and Paving. Specify appropriate paving materials and surface treatments that align with park character, durability requirements, and sustainability goals. Explore permeable paving options and curb designs that enhance drainage, pedestrian safety, and accessibility throughout the park.

Recommendations:

- Use permeable paving, bioswales, and bioretention areas in parking and road surfaces to support drainage, reduce runoff, and improve ecological performance.
- Apply light-coloured or treated asphalt paving where permeability is not possible to minimize the urban heat island effect and increase pedestrian comfort.
- Incorporate paving materials with visual and tactile contrast to guide wayfinding and increase safety for all users.
- Install curbs and paving edges that are flush or beveled to maintain accessibility for people using mobility aids, consistent with AODA requirements.
- Coordinate pavement, curbing, and boulevard designs with York Region and Vaughan's Pedestrian and Cycling Planning and Design Guidelines, particularly along Keele Street, Teston Road, and Kirby Road where future cycling facilities are planned.
- Consider installing Level 2 Type B pedestrian crossing treatments (OTM Book 15) at crossing locations along Vaughan Cares Way.

Key Parking Strategies

Parking

The overarching strategy is to establish a flexible, landscape-integrated parking framework for North Maple Regional Park that prioritizes active and sustainable travel modes, limits the visual and environmental impact of parking, and allows the City to adapt supply, operations, and policies over time as park use evolves.

Parking (both for bicycles and vehicles) is an essential element of the visitor experience, shaping initial impressions and influencing ease of access to park amenities. Strategically planned parking areas can help manage visitor flows, reduce congestion during peak periods, and encourage sustainable travel patterns.

A total of 830 parking spaces is proposed for the North Maple Regional Park, with the goal of serving a base level of attendance on site and avoiding spill out into communities, with major events leveraging transit and off-site parking to meet additional needs. The base level of attendance has been estimated at this conceptual stage based on similar parks elsewhere, and validated against City requirements for parklands.

On-Site Bicycle Parking

Description:

The provision of safe, secure bicycle parking facilities encourages the uptake of cycling as an active, healthy, and convenient mode of transportation for accessing recreation. Since The North Maple Regional Park has been designed to be best experienced by active modes like cycling, it is necessary to facilitate convenient access to park activities and to the park itself by cycling as well. Providing adequate bicycle parking can prevent bike theft or the obstruction of pathways and allow visitors who wish to cycle to the park on their own bikes to participate in recreation activities with peace of mind.

Background:

The Vaughan Consolidated Zoning By-Law does not outline minimum bicycle parking space rates for parks or active/passive recreational use. “Community Facility” uses, which is defined as premises used for indoor and outdoor recreational, institutional, social, or cultural activities, and may include a health and fitness centre, library, or museum, are included, with the greater of 0.2 short-term spaces per 100 square metres of gross floor area or 3 short-term spaces required, and 0.05 long-term spaces per 100 square metres of gross floor area required (City of Vaughan Consolidated Zoning Bylaw, 2021, p. 93). Short-term bicycle spaces consist of a rack and stand designed to lock the wheel and frame of a bicycle. Long-term bicycle spaces are defined as a bicycle parking space located in a locked room within a building or part of a building for the exclusive use of parking bicycles. In the context of a park with mostly outdoor facilities, long-term bicycle spaces can be interpreted as covered spaces within a secured enclosure such as a bicycle cage with electronic access.

The area of recreational facilities planned for the North Maple Regional Park is estimated to be 40,000-70,000 square metres, which would result in a required minimum of 80-140 short-term spaces and 20-35 long-term spaces for the entire park under the Vaughan Consolidated Zoning By-Law when interpreting the park as a Community Facility.

Vaughan’s 2023 Sustainability Metrics Program Guidebook describes a Sustainability Score system with performance levels of bronze, silver, and gold, and a set of Sustainability Metrics to encourage and evaluate the sustainability performance of new development, each with an assigned point value. Metric M-6 provides points based on bicycle parking with the intent to

facilitate cycling and reduce dependence on motor vehicle use (City of Vaughan Sustainability Metrics Program Guidebook, 2023, p.16):

- 1 point is assigned if bicycle parking spaces are provided at a rate of 20% higher than municipal standards/guidelines. ("Good")
- An additional 1 point is assigned if bicycle parking spaces are provided at a rate 50% higher than municipal standards/guidelines. ("Great")
- 2 points are assigned if bicycle parking is located in proximity to building entrances (Short-term bicycle parking is located within 25 metres of building entrance if outdoors, long-term bicycle parking is within 50 metres of an exit or entrance area) and all bicycle parking is weather protected. ("Excellent")
- 1 point is assigned if 1 shower and change room are provided (for men and women) per 30 bicycle parking spaces associated with non-residential development. ("Excellent")

Using the assumed area of recreational facilities described above, 96-168 short-term and 24-42 long-term bicycle parking spaces should be provided for a "Good" score, and 120-210 short-term and 30-53 long-term bicycle parking spaces should be provided for a "Great" score.

Recommended changes to bicycle parking standards in Toronto from September 2024 (City of Toronto Proposed Changes to Zoning By-law 569-2013, 2024, pg. 6) include minimum bicycle parking rates to be established for uses which do not already have them due to challenges with estimating bicycle parking demand based on floor area. The minimum bicycle parking rate to promote alternatives to the automobile is recommended to be equal to 10% to 15% of the vehicle parking spaces, rounded up to the nearest whole number. In a report (City of Toronto Recommended Parking Requirements for New Development, 2025, pg. 19) from January 2025, this recommendation is justified based on the 2021 Census, in which the typical number of bicycle commuters is approximately 10% of the number of auto commuters. In an analysis of 2022 Transportation Tomorrow Survey (TTS) survey data from Toronto and Vaughan on trips with the purpose of "Recreation/sports/leisure/arts" at their destination, the ratio of cycling trips to auto driver trips was 17% for Toronto and 2% for Vaughan, which indicates significant room for growth in the cycling mode in Vaughan. The total number of parking spaces proposed for the North Maple Regional Park is 830, which would result in a required minimum of 80-125 bicycle parking spaces required under these standards.

Key Elements:

Accessibility and Convenience. Where possible, bicycle parking should be located close to facility/building entrances. Paths to and from bicycle parking facilities should be free of obstacles like stairs or steep slopes and ideally be separated from vehicle traffic. Wayfinding signage may also be appropriate to help cyclists locate bicycle parking. Designing strategically for convenient bicycle parking can prevent unwanted parking against trees, wheelchair ramps, utility poles, or railings.

Safety and Security. Bicycle racks and enclosures should be firmly secured and made of high-quality materials, regularly monitored, maintained, and well-lit. Informal surveillance can be encouraged by locating bicycle parking in busier areas of the park. Long-term bicycle parking should be access controlled. The location of bicycle parking should minimize interactions between bicycles and pedestrians, pedestrians using mobility aids, automobiles, and other bicycles within the park.

Weather Protection. Bicycle parking should be located under awnings or overhangs, when possible, to protect bicycles from rain and snow.

Recommendations:

- Provide 200-300 bicycle parking spaces across the park (not including spaces at potential future bikeshare hubs) to fulfill minimum requirements, accommodate the large size of the park and the range of dispersed amenities it will offer, and align with the key focus of promoting non-vehicular travel and sustainable travel modes.
- Strategically locate bicycle parking spaces at key entry points to the park and access points to park activities and facilities.
- Provide the highest concentration of bicycle parking in the facility-dense area around Vaughan Cares Way, including at building and sports facility entrances. 30-50 of the spaces in this area should be covered and enclosed with additional security measures.
- Provide bicycle parking at lower levels in the areas south and east of Vaughan Cares Way. Bicycle parking in these areas should be focused particularly on areas of interest such as play areas and picnic areas. Some provision in these areas should be at key entry points to trails, although it can be assumed that those who access these trails by bike will likely also bike on the trails (The Centre for Active Transportation Intercept Survey for Toronto Parks and Trails, 2024, p. 21), and therefore bicycle parking would be more useful at key destinations than at trail entry points.

On-Site Vehicle Parking

Description:

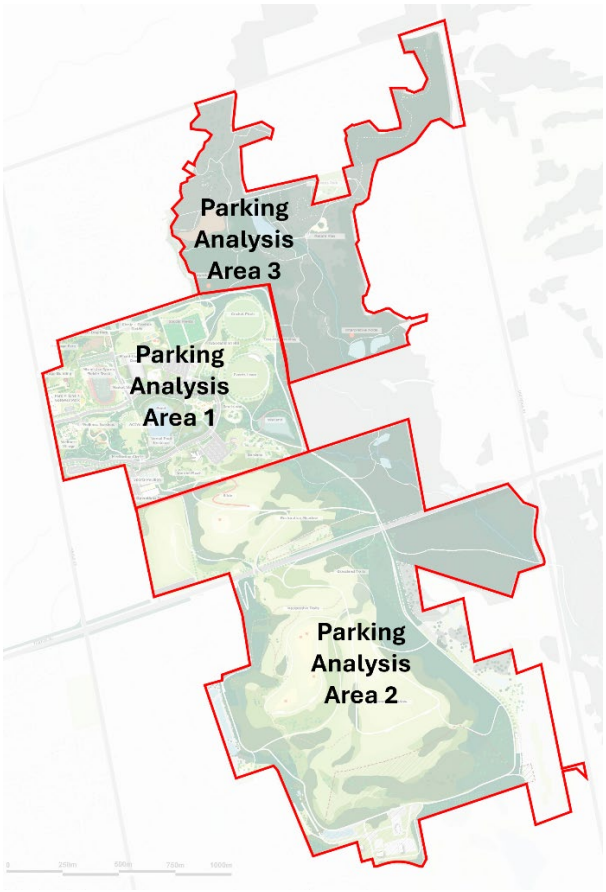
The City of Vaughan presently exhibits 85% of trips with a recreation, sports, leisure, or arts purpose at their destination being completed by car, as a driver or passenger, according to Transportation Tomorrow Survey (TTS) data from 2022. While maintaining a low parking capacity encourages those who have other transportation options to travel through other, more sustainable modes, many park visitors will have no choice but to arrive at the park by car due to travel distance, the equipment they need for their activities, or their own or their passengers' physical abilities. The parking facilities (discussed below) at North Maple Regional Park will still need to adequately serve this population while encouraging and supporting the transition to more sustainable modes.

Background:

The Vaughan Consolidated Zoning By-Law does not outline minimum parking space rates for parks or active/passive recreational use. "Community Facility" uses, defined as premises used for indoor and outdoor recreational, institutional, social, or cultural activities, and may include a health and fitness centre, library, or museum, are included, with a required minimum of 2 parking spaces per 100 square metres of gross floor area. The area of recreational facilities planned for the North Maple Regional Park is estimated to be 40,000-70,000 square metres, which would result in a required minimum of 800-1,400 parking spaces for the entire park under the Vaughan Consolidated Zoning By-Law when interpreting the park as a Community Facility.

The minimum feasible number of parking spaces was calculated by dividing the park into three distinct areas. The first area comprises the 79.8 hectare area surrounding Vaughan Cares Way containing the majority of the recreational facilities within the park, and therefore requiring the greatest amount of parking. The second area comprises the 220.7 hectare area containing mostly open space, picnic areas, and recreational trails at the southern area of the park, and therefore requiring only a small amount of parking. The third area consists of the remaining wooded area in the park containing trails, interpretive nodes, small play areas, and tree-top trekking, and will largely serve the surrounding neighborhoods. Parking analysis areas are depicted in **Figure 1**.

Figure 1. Parking Analysis Areas



An analysis of parks in Toronto (above 5 hectares in size and excluding beaches) was conducted using data from Toronto's Open Data Portal. The total number of parking spaces available at each park was determined from this data, including public, private, member exclusive, and staff lots. The area of each park, in hectares, was calculated from available shapefiles, and used to determine the parking rate. The results of this analysis are outlined in **Table 1** with the proposed parking rate for each of the analysis areas.

Table 1. Parking Analysis

Parking Analysis Area	Area (ha.)	Amenities of Similar Parks Analyzed	Average Parking Rate in Similar Parks (spaces/ha.)	Proposed Parking Rate (spaces/ha.)	Proposed Number of Spaces (total)
1	79.8	A range (at least 2 of any amenity and at least 1 sports facility)	11.95	12	800
2	220.7	A playground and/or a picnic site and/or a washroom	0.71	0.5	30
3	76.7	None or a playground and/or a picnic site and/or a dog off-leash area and/or a washroom	0.48	0	0
Total	**377.2**			**2.20**	**830**

Key Elements:

Key elements of the parking system include:

- Surface parking lots should be designed with planted medians, bioswales, and stormwater features to soften visual impact and improve ecology.
- Prioritize proximity of parking lots to key access roads: Keele Street and Teston Road.
- Incorporate EV charging infrastructure in select stalls and pre-service additional spaces for future demand. EV parking is further discussed in Section 1.2.4.
- Ensure all parking areas include safe pedestrian walkways that are separate from vehicular circulation and clearly delineated.
- Integrate buffered walkways and bike parking between parking lots and trailheads, encouraging park-and-ride for cyclists and pedestrians.
- Ensure all barrier-free parking spaces are within proximity of a barrier-free path to major amenities. Barrier-free parking is further discussed in Section 1.2.3.

Recommendations:

- A total of 830 parking spaces is proposed for the North Maple Regional Park, with the goal of serving a base level of attendance on site and avoiding spill out into communities, with major events leveraging transit and off-site parking.
- Parking provision should cater heavily towards the 79.8 hectare northwestern area of the park, with lots concentrated around proposed recreational uses adjacent to Vaughan Cares Way providing a parking rate of 10 spaces per hectare (Lots 1-6 in the table below).
- Low levels of parking are required to serve the southern 220.7 hectare area containing picnic areas and trails. A rate of 0.15 spaces/hectare is recommended to encourage users to arrive by non-auto modes (Lot 7 in the table below).
- Additional parking is not required for the 76.7 hectare area of trails located in the northeast zone of the park. Users of this area are expected to arrive by walking or cycling from surrounding neighborhoods or will be served by lots in other areas of the park.

- **Table** 2 outlines the proposed parking lots:

Table 2. Proposed Parking Lots

Lot No.	Adjacent Facilities	Status	No. of Additional Spaces (proposed)	No. of Existing Spaces	Total No. of Spaces (ultimate condition)
1	Park Village + Gateway Park	Proposed	62	-	62
2	Wellness Village	Proposed	31	-	31
3	Recreational Uses at the Sports Facilities (north)	Existing, Planned Expansion	172	212	384
4	Conservatory and Gardens, Hillslide, Sports Pavilion	Proposed	170	-	170
5	Pondside Picnic Area & Sports Facilities/Parks Operations	Proposed	42	-	42
6	Keele Street Entrance/Wellness Gardens	Proposed	111	-	111
7	Rodinea Road Parking Lot, Landfill sites	Proposed	30	-	30
Total			**618**	**212**	**830**

Barrier-Free Parking

Description:

While the overall number of parking spaces proposed for the park is conservative to promote a shift to active transportation modes, the adequate provision of barrier-free, accessible parking spaces is of the utmost importance for ensuring equal access to participation in the recreational facilities and natural spaces that North Maple Regional Park will offer.

Background:

Vaughan Consolidated Zoning By-Law Section 6.4.3 outlines the following Minimum Barrier-free Parking Space Rates:

Table 3. Minimum Requirements for Barrier-Free Parking Spaces

Total Provided Parking Spaces	Required Barrier-free Parking Spaces
12 or less	1
13 – 100	4%
101 – 200	1, plus 3% of the total provided parking spaces
201 – 1,000	2, plus 2% of the total provided parking spaces
Over 1,000	11, plus 1% of the total provided parking spaces

According to Vaughan's Inclusive Design Standards, there are two types of accessible parking spaces required (City of Vaughan Inclusive Design Standards, 2020, p.56). Wider Type A spaces can accommodate larger vehicles equipped with transfer ramps for users of wheeled mobility aids. Narrower Type B spaces can accommodate users who are ambulatory but have limited mobility and cannot travel lengthy distances, or use other mobility aids such as canes, crutches, and walkers. An equal number of Type A and B spaces should generally be provided where possible. Table 4 of the Inclusive Design Standards outlines the specific requirements for each number of spaces.

The number and type of accessible spaces provided on sites like the North Maple Regional Park that have multiple parking facilities should be determined separately for each individual parking facility, and the spaces should be located among the facilities to provide substantially equivalent or greater accessibility in terms of distance from an accessible entrance or user convenience such as security and comparative maintenance.

Where facilities may expect a higher proportion of people with disabilities using their services, best practice is to provide additional accessible parking spaces on a case-by-case basis, considering anticipated demand and facility occupancy levels.

Recommendations:

- Provide Barrier-Free parking spaces at each parking lot in the quantities outlined in **Table 4**, at minimum

Table 4. Minimum Barrier-Free Parking Space Requirements for Each Proposed Parking Lot

Lot No.	Adjacent Uses	Status	No. of Spaces	Required No. of Barrier-Free Spaces		
				Total	Type A	Type B
1	Park Village + Gateway Park	Proposed	62	2	1	1
2	Wellness Village	Proposed	31	1	0	1
3	Recreational Uses at the Sports Facilities (north)	Existing, Planned Expansion	384	9	6	3
4	Botanical Garden and Conservatory, Slide	Proposed	170	6	3	3
5	Poolside Picnic Area & Sports Facilities/Parks Operations	Proposed	42	2	1	1
6	Keele Street Entrance/Wellness Garden	Proposed	111	4	2	2
7	Rodinea Road Parking Lot	Proposed	30	1	0	1
Total			**830**	**25**	**13**	**12**

- The proposed Barrier-Free spaces should be located as close as possible, or within a maximum of 30 metres to the nearest accessible facility entrance, have adequate lighting, and be designed per the Inclusive Design Standards.
- Parking lots that serve multiple recreation facilities, buildings, or accessible entrances should have accessible spaces dispersed to enable users to park near as many accessible entrances as possible.
- Consider increasing the number of accessible parking spaces at park facilities that may have a higher number of users with disabilities on a case-by-case basis.

Electric Vehicle Parking

Description:

Providing infrastructure to support the transition to electric vehicles (EVs) can help North Maple Regional Park to be future-ready and adaptable to emerging technologies. As a public area with an overarching focus on sustainability, North Maple Regional Park is well positioned to accommodate electric vehicle charging stations.

Background:

The Vaughan Consolidated Zoning By-Law does not include policies for EV parking. Sustainability Metric BE-10 of Vaughan's 2023 Sustainability Metrics Program Guidebook provides Sustainability Score points based on the provision of Electric Vehicle Supply Equipment (EVSE) to facilitate the use of EVs (City of Vaughan Sustainability Metrics Program Guidebook, 2023, p. 10):

- 3 points are assigned if EVSE is provided to serve 10% of parking spaces ("Good")
- 2 **additional** points are assigned if EVSE is provided to serve 20% of parking spaces ("Great")
- 2 points are assigned if at least 50% of the parking spaces are designed and constructed to permit future EVSE installation (For example, rough-in provisions, defined as empty raceways starting in a junction box in the electrical room and terminating in a junction box central to each parking floor) ("Excellent")

The City of Vaughan is continuing to expand the availability of EV Charging Stations at City Facilities with nine charging stations with 18 connections currently available. An additional 23 stations with 46 connections are planned across Vaughan, including at the nearby Maple Community Centre and Library at 10190 Keele St (City of Vaughan Electric Vehicle Charging Stations, N.D.).

Recommendations:

- Based on the proposed 830 parking spaces, provision of EVSE at 83 parking spaces would be required for a "Good" score, and provision of EVSE at 166 parking spaces would be required for a "Great" score under the Sustainability Metrics Program.
- EV-ready parking spaces should be dispersed throughout the park at each proposed parking lot. A breakdown of the number of applicable spaces per lot is provided in **Table 5**:

Table 5. Quantity of EV-Ready Parking Spaces Proposed per Parking Lot

Lot No.	Adjacent Uses	Status	No. of Spaces	No. of Spaces with EVSE	
				Good	Great
1	Park Village + Gateway Park	Proposed	62	6	12
2	Wellness Village	Proposed	31	3	6
3	Recreational Uses at the Sports Facilities (north)	Existing, Planned Expansion	384	39	77
4	Conservatory and Gardens, Hillslide	Proposed	170	17	34
5	Pondside Picnic Area & Sports Facilities/Parks Operations	Proposed	42	4	9
6	Keele Street Entrance/ Wellness Garden	Proposed	111	11	22
7	Rodinea Road Parking Lot	Proposed	30	3	6
Total			**830**	**83**	**166**

Paid Parking Systems

Description:

Parking presently is free of charge at the North Maple Regional Park. As the Park is developed over stages and more and more people use the park, the City should evaluate the potential for implementing paid parking to manage visitor demand and encourage sustainable transportation options. Paid parking should be integrated with Vaughan's existing online parking permit system to streamline visitor experience and operational efficiency.

If paid parking kiosks are to be implemented in the future, they should also consider the need for accessibility (not located too far from barrier-free parking spaces, and a clear and level path to access them).

Special Events

Description:

Special events significantly increase visitation and impact park operations, transportation networks, and public safety. A dedicated strategy is essential to ensure smooth visitor access, protect park ecology, and maintain a positive visitor experience during high-volume days. This includes proactive planning for parking, transit, shuttles, and visitor amenities.

Key Elements:

Develop a Special Events Operations Plan. Create a comprehensive operational framework for transit, parking, and park access during large-scale events. This includes coordinating transit service enhancements, shuttle deployment, crowd control, and emergency access.

Integrate Transportation Demand Management (TDM). Incorporate measures to reduce single-occupancy vehicle use during events by encouraging transit, active transportation, and off-site parking with shuttle service. Implement communication strategies to guide visitor behavior.

Coordinate with Event Organizers and Agencies. Establish protocols to coordinate with event organizers, York Region Transit, Metrolinx, emergency services, and City departments to ensure integrated planning and execution.

Recommendations:

- Designate a Special Events Overlay Plan for transit, shuttle, and parking operations, including event-specific circulation patterns, loading zones, and emergency access routes.
- Expand public transit frequency on event days through coordination with York Region Transit and GO Transit. Prioritize timed connections at the Maple GO station and the future Kirby GO station.
- Deploy event-based shuttle services with extended service hours and higher frequency, linking off-site parking lots, GO stations, and major park entrances.
- Establish temporary wayfinding signage, schedule boards, and staff-led navigation assistance for visitors arriving via transit or shuttle.
- Reserve overflow parking areas off-site (near GO stations or underused commercial lots) with agreements in place for shared event use.
- Implement pre-booked or timed-entry parking permits to regulate demand and reduce on-site congestion.
- Communicate event access plans using multi-channel marketing including park websites, social media, local radio, and signage at transit stations.

- Designate temporary loading and unloading zones for vendor logistics, equipment, and performers, separated from visitor access points.
- Conduct post-event reviews to assess effectiveness and gather feedback for future improvements.

Loading Zones

Description:

Passenger loading and unloading will be a typical daily function of visitors at the park. Dedicated space for this activity at destinations accessible by vehicles needs to be provided for the safety of passengers and pedestrians and for orderly multi-modal traffic flow.

Background:

Guidance for implementing pick-up and drop-off zones from Vaughan's Transportation Demand Management Guideline (City of Vaughan Implementation of Pick-up and Drop-off Zones, N.D.) includes:

- Provide on-site pick-up and drop-off zones that are fully accessible at-grade to facilitate short-term pick-up and drop-off activities.
- Provide adequate space so queueing will not spillback onto driveways or public roads or disrupt traffic flow on site.
- Use design interventions (curbs, islands), pavement markings and textures to delineate pedestrian facilities and pick-up and drop-off zones.
- Where possible, passenger pick-up and drop-off zones and loading zones should not conflict with pedestrian facilities by locating the zones at an alternate accessible building entrance.

Key Elements:

Identify Visitor Pick-Up and Drop-Off Areas. Establish designated loading zones strategically located near key park entrances, amenities, and activity hubs to facilitate easy and safe visitor access.

Recommendations:

- Design dedicated drop-off and loading areas near entrances and activity hubs with clear connections to pedestrian paths.
- Include signage, and lighting to support service and emergency vehicle access.
- Ensure drop-off areas meet accessibility standards with curbed ramps, tactile cues, and close proximity to amenities. See Section 1.1.6 for additional details on accessible Passenger Loading Zones.
- Allow school buses and group tours to safely drop off at centralized loading zones near the Keele Street entrance, with minimal interruption to traffic.

Conclusion

The strategies outlined in this volume prioritize walking, rolling, cycling, and transit as the primary means of accessing and moving through the park, while accommodating necessary vehicle access, parking, servicing, and emergency operations. By emphasizing low vehicle speeds, universally accessible facilities, clear wayfinding, and landscape-integrated infrastructure, the transportation network is designed to enhance the overall park experience while respecting the site's ecological, recreational, and cultural context.

Parking, transit, and circulation recommendations are intentionally conservative and adaptable, reflecting both current travel patterns and the City's long-term objectives to encourage mode shift and manage peak-period demand. The proposed parking supply, anticipated transit and shuttle strategies, and provisions for future technologies such as electric vehicle charging are intended to be implemented incrementally, coordinated with park phasing, programming, and evolving use patterns. Collectively, these measures provide the City with a practical and resilient transportation toolkit that can respond to changing needs while supporting the Master Plan's guiding principles of **Restore, Engage, and Play**.

Future transportation studies, refinements, and implementation priorities—such as detailed phasing, operational planning, and coordination with external agencies—are identified in Technical Volume 4: Transportation, Appendix 1, and should be read in conjunction with this technical volume.

A summary of the key studies is included below (refer to the Volume 4 Transportation Appendix spreadsheet for a detailed list):

- Transit Service Feasibility & Phasing Review: as the park is developed, maintain an ongoing conversation with York Region Transit (YRT) to assess and review how transit is/could be utilized in the park.
- Operational Traffic Study: as the park is developed, monitor and assess the performance of key intersections at the park's perimeter (or at key intersections nearby).
- Road Safety Review: as the park is developed, assess the performance of Vaughan Cares Way in providing a safe and efficient access point for vehicles in the park, while maintaining a low speed.
- Parking Supply & Special Events: as the park is developed and detailed parking requirements become clearer, reassess the level of parking provided (aligned with City practices for encouraging sustainable modes of travel). Also required will be a special events strategy to ensure that any future events are able to cater to an increased demand for the park through safe and convenient means of travel.

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NMRP Master Plan Technical Volume 4: Transportation Appendix 1 - Future Transportation Studies and Implementation Priorities

Study	Details	Rationale	Priority Level (Mandatory/Not)	Review in next NMRP Update or separate?	Detailed design?
Phased Parking Strategy Validation	Detailed Parking Supply & Phasing Study (Updates parking demand forecasts as new amenities come online; confirms the number and timing of parking lots before construction)	Required as the details of the proposed buildings become available (how many seats/courts etc.)	Required, but would be completed as part of building design	Related to building design	Yes
	Special Events Parking & Overflow Plan (Identifies satellite parking locations, shuttle needs, and traffic controls before introducing major event generating uses (e.g., stadium, tournament facilities) and should be based on the specific events as they are proposed.	Needed to ensure proposed events are able to be successfully run at the site without unreasonable impacts on the surrounding areas.	Required, likely part of detailed design once buildings are defined or during special event permitting.	Related to building design	Yes
Multi Modal Access & Network Integration	Active Transportation Network Refinement Study (Validates AT connections as new trails, entrances, and facilities are built; ensures integration with the Vaughan Super Trail and external AT network)	Monitor on an ongoing basis as trails are constructed within and adjacent to the park	Not mandatory	Review in next update	Yes
	Transit Service Feasibility & Phasing Review (Coordinates with YRT to confirm routing, stop placement, and on site transit access as ridership potential increases)	As the site is implemented, ongoing discussion with YRT for transit service is beneficial.	Not mandatory	Review in next update	No
	Shuttle Feasibility Study (Determines when transit shuttles to Maple GO or other transit hubs should begin, based on park user volumes)	Likely part of a special events program, or may be discussed with YRT.	Not mandatory	Separate	No
Site Access, Circulation, and Road Operations	Updated Site Access & Circulation Plan (Reassesses internal street network, drop off zones, service access, and speed management as additional facilities are built. Ensures the “pedestrian and cyclist first” design approach remains intact)	Monitor and reassess the park as it is implemented and utilized	Not mandatory	Review in next update	No
	Operational Traffic Review (Non EA) (Short, targeted analyses at external intersections (if volumes begin to approach operational thresholds).	Monitor and reassess the park as it is implemented and utilized	Not mandatory	Review in next update	No
	Wayfinding & Signage Strategy for Mobility (at the implementation stage to ensure clarity of multimodal routing as the number of entrances, lots, and amenities changes/grows).	Ongoing review within NMRP	Not mandatory	Review in next update	No
Transportation Demand Management (TDM) Plan	TDM Implementation & Monitoring Plan (Phases in measures such as bike parking expansions, EV charging rollout, and monitors effectiveness over time. Supports the flexible, adaptive parking policy framework)	Related to broader City/Regional initiatives, but targeted to the park as the initiatives are rolled out	Not mandatory	Review in next update	No

NMRP Master Plan Technical Volume 4: Transportation Appendix 1 - Future Transportation Studies and Implementation Priorities

Study	Details	Rationale	Priority Level (Mandatory/Not)	Review in next NMRP Update or separate?	Detailed design?
Safety & Accessibility Compliance	Accessibility & AODA Mobility Audit (Confirms all new paths, transit stops, parking areas, and crossings meet AODA as amenities evolve)	Part of construction/contract administration. Monitor/reassess if AODA changes at any time	Not mandatory	Review in next update	Yes
	Road Safety Review (Internal Network) to ensure internal circulation maintains low speed, shared space character and identifies design adjustments required as visitor volumes grow.	Consider this once the park has been further developed to ensure that the road network and parking lots are safe and functioning as expected	Not mandatory	Separate	No
Major Facility–Specific Transportation Studies	**Before constructing major program elements, the City should complete targeted assessments:**				
	Emergency Access & Fire Route Plan (Required before adding larger amenities).	These are all likely things that City planning may want to see as part of a building application	Mandatory	Separate	Yes
	Event Transportation Management Plan (ETMP) (Covers traffic staging, shuttle operations, transit coordination, crowd control, and parking suppression strategies)				
	Peak Hour / Event Transportation Analysis (Confirms the road network & parking can support anticipated event surges without degrading local neighbourhood operations).				
	Visitor Travel Behaviour / Trip Generation Assessment (Validates expected daily and seasonal demand and refines parking and transit service accordingly)				
	Loading & Servicing Access Study (Ensures compatible operations with pedestrian priority routes)				
	Mobility Hub Style Access Strategy (Ensures integration of indoor facilities with pedestrian, cycling, and transit networks)				
Ongoing Monitoring & Adaptive Management	Annual or Biennial Mobility Performance Review (Updates on AT usage, parking utilization, mode share, event impacts, and conflicts)	Helps to create a baseline and report on future usage as the park develops. Can support the decision making process in the future.	Optional	Separate	No
	Data Collection Program (Ped/Bike Counts, Parking Utilization, Intercept Surveys)	Helps to create a baseline and report on future usage as the park develops. Can support the decision making process in the future.	Optional	Separate	No

Study	Details	Rationale	Priority Level (Mandatory/Not)	Review in next NMRP Update or separate?	Detailed design?
Digital Mobility & Smart Infrastructure	Intelligent Parking Management Feasibility Review (Looks at real time occupancy signage as lots expand).	Helps to create a baseline and report on future usage as the park develops. Can support the decision making process in the future.	Optional	Separate	No
	Smart Trail & Mobility Sensors Strategy (Gathers trail usage data to guide future AT improvements or connections).	Helps to create a baseline and report on future usage as the park develops. Can support the decision making process in the future.	Optional	Separate	No