



04 TRANSPORTATION

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4.1 Transforming Transportation

4.1.1 Transforming Transportation

This Official Plan calls for a transformation in how people move around Vaughan. Land use and transportation are inextricably linked, and a sustainable transportation network is critical to supporting the City's approach to growth and development. Significant investments in public transit are currently being made through York Region (according to the York Region Transportation Master Plan, 2009) and Metrolinx Regional Transportation Plan and will be the framework for Vaughan's future transportation network. Areas well-served by transit will be the focus for growth and *intensification*, providing a higher density of residents, jobs and activities to make use of transit investments. With a comprehensive transit system, as well as widespread bicycle and pedestrian networks, movement in Vaughan will become more balanced and will provide real mobility options.

The future transportation network will be built on today's system. The existing street network will serve as the framework for enhancements to transit, walking and cycling systems, making efficient use of existing and future infrastructure investments. However, some of today's streets will look very different in the future. Infill and *intensification* will bring new growth to **Intensification Areas**; streetscape investments will make streets enjoyable and safe places; and all modes of travel will be accommodated in an integrated and linked fashion.

It is the policy of Council:

- 4.1.1.1. To establish a comprehensive transportation network that allows a full range of mobility options, including walking, cycling and transit.
- 4.1.1.2. That public transit shall be the primary focus for expanding Vaughan's transportation network capacity to 2031. Consistent with the York Region Official Plan, an overall transit modal split of 30% during peak periods is targeted for the City as a whole and a transit modal split of 50% is targeted for **Intensification Areas** by 2031.

- 4.1.1.3. To recognize the integrated nature of land use, urban design, and transportation in land use planning decisions and to ensure that such decisions support a full range of transportation options, and specifically prioritize opportunities to enhance walking, cycling and transit options.
- 4.1.1.4. That **Intensification Areas** are priorities for transit investments. Land-use planning decisions within **Intensification Areas** shall maximize the use of existing and planned transit infrastructure, taking into account the planned level of transit service and potential impacts on nearby neighbourhoods.
- 4.1.1.5. That the street network shall be the basis for enhanced transportation opportunities, including transit, walking, cycling, and placemaking initiatives. Existing rights-of-way shall be optimized to ensure efficient movement for a variety of modes, potentially resulting in reduced capacity for cars where overall capacity increases can be achieved.
- 4.1.1.6. To support the development of a comprehensive network of on-street and off-street pedestrian and bicycle routes, through the implementation of the City's Pedestrian and Cycling Master Plan and York Region's Pedestrian and Cycling Master Plan, to facilitate walking and cycling and to ensure convenience and connectivity. Opportunities to improve the connectivity of the City's street system shall be identified through the development process.
- 4.1.1.7. To implement the long-term transportation and transit networks, as identified on Schedule 9 and Schedule 10 respectively, in coordination with the appropriate agencies and adjacent municipalities and secure land for such purposes through the development approval process.
- 4.1.1.8. That all transportation and transit infrastructure initiatives within the Oak Ridges Moraine and Greenbelt Plan Areas identified on Schedule 4 shall be in accordance with the policies of those Plans and the applicable policies of Section 3.4 of this Plan.

4.2 The Transportation Network

4.2.1 The Street Network

The street network will serve as the framework on which to build and enhance other movement networks, including walking, cycling and transit. The network includes a hierarchy of street types. Each street type has a specific profile and characteristics, including traffic volume range, right-of-way width and capacity for transit.

- Provincial highways are Provincially managed, limited access freeways that accommodate a high volume of traffic, support rapid and local transit, but are not accessible for pedestrian and bicycle use.
- Arterial streets, or arterials, form the concession block grid that provides the overall structure to Vaughan's street network. Certain arterials are managed by the Region and others are under the jurisdiction of the City. Improvements to arterial rights-of-way are being made to provide better conditions for pedestrian, bicycle, and transit use.
- Collector streets provide important linkages within the concession blocks created by arterial streets. Managed by the City of Vaughan, major and minor collector streets can support local transit and pedestrian and bicycle facilities. Major collector and minor collector streets have a maximum of four through-lanes and two lanes, respectively.
- Local streets have low traffic volumes, and a maximum of two lanes. They accommodate pedestrians and cyclists, and may support community-oriented transit, where required.

Having established the appropriate hierarchy of streets in the network to meet a variety of transportation needs, greater connectivity between the elements of the network will create a stronger grid-like network, both within and between the concession blocks. These enhancements will promote greater connectivity without undue reliance on increased arterial lanes and increased traffic volumes.

It is the policy of Council:

- 4.2.1.1. To recognize the existing street network as the framework for developing a comprehensive and integrated transit network, including local and rapid transit, and as the framework for an integrated network of walking and cycling infrastructure. Subway and regional rail infrastructure shall be fully integrated with the street-based transit network to ensure connectivity and ease of use.
- 4.2.1.2. To ensure that the street network prioritizes safe and efficient pedestrian travel while effectively accommodating cyclists, transit and other vehicles, and to create more pedestrian and transit-friendly street cross-sections.
- 4.2.1.3. To ensure that streets are designed to enhance Vaughan's overall public realm as outlined in Section 9.1.1 of this Plan.
- 4.2.1.4. To recognize a hierarchy of streets including arterials, collectors and local streets, based on functional classification, traffic volume, access, transit service, pedestrian and bicycle activity and development density. Street design shall be in accordance with City engineering standards for each street class and the street network shall clearly indicate the characteristics and nature of the street functions as local, collector or arterial. Planned right-of-way widths are identified on Schedule 9.
- 4.2.1.5. To develop a connected and continuous, grid-like street network that supports convenient and efficient travel by all modes of transportation and to discourage the development of street types that disrupt the grid network. New development shall support a grid-like street network with multiple connections to collector and arterial streets.

- 4.2.1.6. To implement the various improvements to the street network identified on Schedule 9 in coordination with the appropriate agencies and adjacent municipalities and secure land for such purposes through the development approval process. Improvements include widenings as per the right-of-ways identified on Schedule 9, completion of incomplete grid connections such as Langstaff Road over the rail corridor, jog eliminations at intersections, new and improved interchanges with 400-series highways and grade separated rail and highway crossings.

Provincial Highways

Provincial highways play a major structuring role in Vaughan, acting as significant movement corridors and focal points for regionally-serving uses. Despite congestion issues, Provincial highway corridors present significant opportunities for transportation capacity improvements. Vaughan supports the use of Provincial highways and their corridors for high-occupancy vehicle lanes and/or other rapid transit initiatives.

Despite the contribution of the 400-series highways to the growth of Vaughan to-date and into the future, they also act as barriers, reducing connectivity between parts of the City. Increasing both collector and arterial crossings of Provincial highways will be a priority. While this is most easily accomplished when streets and highways are being built, opportunities for increased connectivity will also be explored in already developed areas.

- 4.2.1.8. To support the timely construction of the approved Highway 427 extension north of Highway 7 to Major Mackenzie Drive.
- 4.2.1.9. To work with York Region and the Province to secure improvements to, and new interchanges with, 400-series highways. The City will seek to secure land for such purposes, where warranted, through the development approval process.
- 4.2.1.10. To work with the Province to provide restoration and/or enhancement of the landscape within and adjacent to the rights-of-way of 400-series highways.
- 4.2.1.11. To encourage and support the early implementation of transit in the Highway 407 and 427 corridors and, where warranted, encourage the provision of high occupancy vehicle lanes along all Provincial highways.

- 4.2.1.12. To encourage and support grade separated crossings of Provincial highways as needed at arterial and collector streets that would accommodate all modes of travel, and to encourage and support pedestrian and bicycle crossings of Provincial highways in areas of high demand or strategic need. The City will seek to secure land for such purposes, where warranted, through the development approval process.
- 4.2.1.13. That due to noise, environmental and truck traffic concerns, areas directly adjacent to Provincial highways should generally be protected for non-residential purposes. Single detached, semi-detached, townhouses and stacked townhouses are specifically prohibited at such locations.

Arterial Streets

Vaughan's arterial streets form a grid-like network based on the historic pattern of concession blocks. Arterials play an important role in moving large volumes of traffic and will be the primary location for rapid transit service. Their importance is reflected in the Urban Structure shown on Schedule 1, where they form the basis for the location of nearly all the **Intensification Areas**. In addition to enhanced pedestrian, bicycle and transit capacity, arterials will be the focus for streetscaping and other placemaking initiatives to improve the quality of place, especially in **Intensification Areas**. York Region is responsible for major arterials, and Vaughan will work with the Region to ensure major arterials best meet the needs of the City.

- 4.2.1.14. To work with York Region to ensure that arterial streets under Regional jurisdiction respond appropriately to Vaughan's Urban Structure, including the development of guidelines for increased connections to arterials, permissions for on-street parking and support for a broad range of mobility options.
- 4.2.1.15. To work with the Region to create more pedestrian and transit-friendly street cross-sections including reduced daylight triangle and curb radii requirements and on-street parking on Regional arterials.
- 4.2.1.16. That arterial streets shall be designed to accommodate all types of movement, including pedestrians, cyclists, transit and automobiles, and, where necessary and feasible, shall be designed to accommodate high-occupancy-vehicle or bus lanes and separate bike lanes.

- 4.2.1.17. To increase connections from collector streets to arterial streets where feasible, and to increase arterial crossings of 400-series highways. The City will seek to secure land for such purposes, where warranted, through the development approval process.

Collector Streets

Collector streets give organization to the street system within concession blocks, providing important linkages between local and arterial streets. Collector streets allow for convenient and efficient movement within and between adjacent concession blocks, are expected to carry moderate traffic volumes and should be continuous to ensure efficient traffic flow and provide effective routing for transit vehicles, bicycles and pedestrians.

- 4.2.1.18. To ensure the development of a collector street network that provides for short to medium distance trips within the City in order to support and augment the capacity of the arterial street network.
- 4.2.1.19. That major collector streets shall have a maximum of four through-travel lanes and that minor collector streets shall have a maximum of two travel lanes.
- 4.2.1.20. To provide a minimum of 2 north/south and 2 east/west collector streets in new development, including grade-separated crossings of 400-series highways and rail corridors, to ensure that local travel between and within concession blocks is possible without the necessity of traveling on arterial streets, and to provide effective routing for transit vehicles.
- 4.2.1.21. That all collector streets shall be considered as potential transit routes and shall be able to accommodate conventional bus-based transit service.
- 4.2.1.22. To support the provision of dedicated bicycle lanes, where feasible, on collector streets.

Local Streets

Local streets are intended to provide access to individual properties within residential areas. They are low capacity streets that are not designed to accommodate high vehicle volumes. Generally, local streets are low-speed and pedestrian- and bicycle-friendly.

- 4.2.1.23. That local streets shall be oriented to the collector street system in a grid-like manner, while taking into account topographical constraints, desire for solar orientation, and special features, to ensure:
 - a. the provision of convenient connections to collector streets, shopping, transit stops, schools, parks and other community amenities;
 - b. that navigation within concession blocks is clear and understandable; and,
 - c. that through-traffic on local streets is minimized.

- 4.2.1.24. That local streets may accommodate community-oriented transit service, where required.

- 4.2.1.25. To ensure that local streets are designed for lower traffic speeds and volumes. Dedicated bicycle lanes will not be required on local streets, but signed bicycle routes may be identified on local streets.

Street Construction, Improvements and Maintenance

Street construction and improvements provide opportunities to advance a progressive transportation agenda in Vaughan. This Plan will ensure that new construction and street rebuilding will respond to Vaughan's priorities, including better integration of transit, pedestrian and bicycle users, and enhanced streetscaping that provides high quality public space within street rights-of-way. Section 9.1 of this Plan provides additional direction on streetscaping and street design.

- 4.2.1.26. That the primary consideration for enhancements to the street network are to support transit and rapid transit, cycling, walking and other alternatives to automobile use. All new streets and the redesign of existing streets shall have a balanced right-of-way that supports the needs of pedestrians, cyclists, transit vehicles and automobiles.
- 4.2.1.27. To consider reducing the number of lanes or curb-to-curb width of streets, especially where such reductions provide opportunities to enhance the pedestrian and bicycle network. The long term right-of-way widths for major streets are shown on Schedule 9.
- 4.2.1.28. To consider the natural heritage policies of this Plan, located in Chapter 3, when planning for transportation facilities and to address all policies of this Plan in the construction and reconstruction of streets, transit infrastructure, sidewalks and pathways.
- 4.2.1.29. To ensure that street system improvements are co-ordinated with Block Plan and Plan of Subdivision approvals so that adequate street system capacity is in place, particularly on the arterial, and collector street networks including mid-block crossings of 400-series highways and rail corridors, to accommodate the projected traffic volumes concurrent with the development of the block.
- 4.2.1.30. To consider streetscaping, cycling facilities and public art initiatives in the development of the capital plans for public streets and leverage funding of such initiatives through the fostering of partnerships.

4.2.2 Supporting a Comprehensive Transit System

High quality and convenient transit service will be the primary means for expanding Vaughan's transportation network capacity. Key investments have been identified in the Metrolinx Regional Transportation Plan, and the York Region Transportation Master Plan to enhance the transit network, including the Toronto-York Subway extension (to be operational in 2015), which will provide three subway stations in Vaughan, the planned Yonge Subway extension into Vaughan, and enhancements to the VIVA rapid transit system.

Land use and transportation are interrelated. Future growth and *intensification* in Vaughan will be dependent on transportation capacity increases through investment in transit systems and services. **Intensification Areas** must be supported by efficient and effective transit to serve the expected population increases. Conversely, higher density development should be directed to areas well-served by transit, and all areas of the City should be developed with a street pattern and densities that support transit use.

It is the policy of Council:

- 4.2.2.1. To facilitate the planning of a comprehensive transit system for the City in consultation and cooperation with all appropriate agencies.
- 4.2.2.2. To encourage service and fare integration and other opportunities to coordinate transit travel across municipal boundaries.
- 4.2.2.3. To support and encourage timely and continuing investments in the implementation of regional transit initiatives to ensure early adoption of rapid transit service throughout Vaughan.

Rapid and Local Transit

- 4.2.2.4. To support and encourage the implementation of the transit network shown on Schedule 10 and, working with York Region, to secure lands, where appropriate, through the development approval process for facilities such as:
- a. transit stations including intermodal terminals, mobility hubs, subways, bus and light rail stations and related passenger drop-off and commuter parking areas;
 - b. related infrastructure, including vent shafts, transit operation and maintenance facilities, passenger standing pads and passenger pick-up and drop-off areas, electrical substations and passenger safety facilities;
 - c. pedestrian and cycling facilities;
 - d. intelligent transit and travel information systems; and,
 - e. public streetscape enhancements.
- 4.2.2.5. That the subway extensions and enhanced VIVA service corridors and stations shall be the areas of highest development densities in the City.
- 4.2.2.6. To support the early funding and implementation of the planned Yonge Subway extension to Highway 7 and any interim phasing infrastructure necessary including bus rapid transit, and to consider the planned extension in land-use planning decisions.
- 4.2.2.7. To support further extension of the Toronto-York Spadina Subway in the Jane Street right-of-way and adjacent properties.
- 4.2.2.8. To support and encourage service enhancements to transit service, especially in ***Intensification Areas***, including busways, higher order transit and transit priority measures (such as high occupancy vehicle lanes, queue-jump lanes, signal pre-emption systems) aimed at improving the efficiency of transit.

GO Transit

- 4.2.2.9. To encourage Metrolinx, and other public agencies as appropriate, to implement improvements to GO Transit service within the City including:
- a. increases in the frequency of GO train and bus service in both inbound and outbound directions;
 - b. implementation of additional GO service routes and stations;
 - c. improved cycling and pedestrian connections to the surrounding street network and or adjacent development; and,
 - d. improved co-ordination of local transit services with GO Transit.
- 4.2.2.10. To encourage the implementation of new GO train stations in Vaughan, and expanded service along the proposed Bolton and the existing Barrie GO railway corridor.
- 4.2.2.11. To plan areas surrounding GO stations for higher density development and a mix of uses to take advantage of regional transportation infrastructure.

Transit-Oriented Development

- 4.2.2.12. That higher intensity uses shall be directed to areas served by higher-order transit, including subway stations and Viva rapid transit corridors. Higher-order transit investments that serve the ***Intensification Areas*** should be prioritized in order to meet the mobility needs of these higher-intensity growth areas.
- 4.2.2.13. To encourage the provision of transit service within 500 metres of at least 90% of residences and the majority of jobs and other activities throughout the City, and within 200 metres of at least 50% of residents in the *urban area*.
- 4.2.2.14. To direct major trip-generators, institutional uses and generally intensive land uses to ***Intensification Areas*** in order to promote increased transit mobility for all residents and particularly those that are dependent on transit.
- 4.2.2.15. To apply the York Region Transit-Oriented Development Guidelines, and Provincial Transit-Supportive Land Use Guidelines, through the development approvals process.

- 4.2.2.16. To develop complete pedestrian and bicycle networks and associated facilities in and around transit stops to encourage transit use and extend the catchment area of the transit stops.
- 4.2.2.17. To ensure the development of street networks that accommodate efficient transit movement, provide convenient access to transit stops, and can accommodate a range of uses over time. New streets shall:
- a. divide larger parcels into a more walkable and connected street and block pattern;
 - b. form development parcels that are flexible and supportive of a range of uses over time; and,
 - c. align with and extend into adjacent neighbourhoods to ensure connectivity.

4.2.3 Supporting Active Transportation

Improvements to the networks that support active transportation will increase mobility alternatives for all people in Vaughan. With more and better pedestrian and bicycle facilities, movement will be diversified and equitable, and will contribute to healthy communities. *Intensification* and mixed-use development will make active transportation more viable, bringing people and amenities closer together. In addition to commuter and utilitarian travel, complete active transportation networks will support increased recreational opportunities and encourage active living and healthy communities.

It is the policy of Council:

- 4.2.3.1. To support walking and cycling as viable modes of transportation for commuter, recreational and other travel. City-wide active transportation shall be supported through:
- a. the provision of appropriate facilities and infrastructure, such as sidewalks, trails and bicycle lanes, which may be secured through the development approvals process, and to ensure *universal accessibility* for such facilities and infrastructure;
 - b. maximizing connections to significant destinations, including ***Intensification Areas***, employment clusters, schools and institutions, parks and open spaces, and other key public places;
 - c. ensuring safe and convenient pedestrian and bicycle travel within the street network to facilitate movement and contribute to healthy communities;

- d. implementing and regularly updating the Pedestrian and Bicycle Master Plan, consistent with York Region's Pedestrian and Cycling Master Plan, to ensure pedestrian and bicycle facilities are effectively meeting the needs of users and potential users; and,
 - e. establishing annual targets for the provision of bicycle lanes and routes, multi-use pathways, and trails and including them in the City's capital plan.
- 4.2.3.2. To ensure that the comprehensive pedestrian and bicycle network addresses the needs of all Vaughan's residents and employees, including children, seniors and people with disabilities, and that bicycle and pedestrian facilities are supported through appropriate design, signage and consistent safety enforcement.
- 4.2.3.3. To maximize the connectivity of the street network for pedestrians and cyclists by:
- a. ensuring grid-like connectivity that minimizes trip distance;
 - b. ensuring that gaps in the street network are minimized by the provision of strategically located sidewalk and pathway connections;
 - c. ensuring that the design of large development sites supports multi-use pathways and access points on-site and maximizes connectivity to the surrounding pedestrian and bicycle networks;
 - d. ensuring convenient and direct connections to transit stops and stations; and,
 - e. ensuring the provision of grade-separated pedestrian and bicycle crossings of controlled access highways and rail lines where such corridors limit accessibility and restrict pedestrian and bicycle activities.
- 4.2.3.4. To require sidewalks on both sides of the street on all arterial and collector streets, streets in **Intensification Areas** and local streets that contain schools, transit stops and stations or other public facilities, with the exception of streets in Heritage Conservation Districts or in the **Countryside**. In all other locations sidewalk provisions will be determined through the Block Plan process. Where sidewalks are currently not provided on both sides of the street, sidewalks shall be considered during major redevelopment or substantial reconstruction of the right-of-way. All sidewalks shall be built to City guidelines and standards, to accommodate and encourage safe travel by pedestrians.
- 4.2.3.5. That dedicated bicycle lanes shall be encouraged, where feasible, on arterial and collector streets.

- 4.2.3.6. To facilitate convenient bicycle travel within the street network by minimizing restrictions to bicycle flow and considering the specific needs of cyclists in street design and traffic safety measures.
- 4.2.3.7. To encourage a comprehensive network of connected parks and multi-use trails within utility and abandoned rail corridors to support pedestrians and cyclists and augment the on-street network.

Cycling Facilities

- 4.2.3.8. To ensure the provision of cycling facilities in mixed-use buildings, residential apartment buildings, institutions, and office buildings by developing bicycle parking and facilities standards within zoning by-laws.
- 4.2.3.9. To provide convenient locations for bicycle parking within the right-of-way of a street and at public facilities, and to establish annual targets for the installation of public bicycle parking facilities. Public bicycle parking shall be provided in **Intensification Areas** and at other significant public gathering places.
- 4.2.3.10. To require bicycle parking at all secondary schools to promote cycling to school by both students and staff.
- 4.2.3.11. To promote the use of bicycles as a way of getting to and from public transit by working with transit providers to integrate bicycle and transit networks and provide bicycle supportive infrastructure at transit stations and stops and on transit vehicles, including safe bicycle parking facilities, bicycle racks on buses and other means.
- 4.2.3.12. To consider the coordination of central bicycle parking facilities, which may also include supporting amenities such as lockers, showers and changing facilities, in the **Vaughan Metropolitan Centre, Primary Centres** and other locations where demand to support such facilities is demonstrated. Such facilities may be developed in partnership with private sector development.
- 4.2.3.13. To consider developing a bike-share program that would increase cycling in Vaughan through the provision of a shared fleet of bicycles stationed at hubs throughout the City.

4.3 Managing Movement

4.3.1 Traffic Calming

Vaughan's streets should be safe for all users, including pedestrians, cyclists and drivers. Traffic safety is closely related to vehicular speed, and speed is influenced by street design. Wide open streets lead to higher traffic speeds, while narrow and seemingly unpredictable streets generate caution in drivers resulting in lower speeds. Vaughan's street network should be designed to accommodate all types of movement safely and efficiently.

It is the policy of Council:

- 4.3.1.1. To design streets for speeds appropriate to their context to avoid the need for secondary traffic calming measures.
- 4.3.1.2. To ensure that traffic calming initiatives do not have the effect of channelizing all traffic onto arterial streets but support a diffuse pattern of traffic that maximizes the efficiency of the grid network.
- 4.3.1.3. That traffic calming measures shall not impact walking, cycling and transit use. York Region Transit shall be consulted in this regard.
- 4.3.1.4. That traffic calming measures shall be designed and implemented in accordance with the City of Vaughan Traffic Calming Guidelines and Warrants in order to minimize the impacts on emergency, transit and maintenance vehicles.

4.3.2 Parking

Vehicle parking is an important part of transportation systems, but must be managed properly to minimize adverse impacts. Generally, surface parking underutilizes urban space, creates gaps in the urban fabric and encourages driving over other modes.

Parking will continue to be provided in Vaughan, but in a style and amount that contributes positively to placemaking and does not threaten the quality and attractiveness of other means of transportation. Increased permissions for on-street parking will support retail and economic development, contribute to a high quality streetscape and calm traffic. Lower parking requirements and shared parking facilities will reduce parking lot sizes and create a higher quality and compact urban environment. Generally, parking will reflect Vaughan's status as a major, growing, transit-supportive and pedestrian-friendly city, and will be responsive to all types of movement.

It is the policy of Council:

- 4.3.2.1. To consider establishing a municipal parking authority to:
 - a. review and manage on-street parking policies;
 - b. provide and manage an appropriate parking supply;
 - c. develop a pay-for-parking system for on-street parking in high parking demand locations throughout the City, including **Intensification Areas**;
 - d. provide shared, central parking facilities in high-demand locations; and,
 - e. support alternative modes of travel.

- 4.3.2.2. To reduce parking requirements where feasible by:
 - a. establishing minimum and maximum parking standards in zoning by-laws for all types of development;
 - b. establishing context-sensitive parking requirements that respond to diverse settings, including **Intensification Areas**, historic places and other settings;
 - c. reducing parking requirements in **Intensification Areas** where transit, walking and cycling alternatives exist;
 - d. supporting parking for carpool, carshare, and zero emission vehicles through preferential designated parking spots and/or reduced parking fees, where charged by a municipal parking authority, as appropriate;

- e. considering the variability of peak parking periods throughout the day for different types of uses for the purposes of sharing parking between such uses when developing parking standards in mixed-use areas;
 - f. working with the school boards to reduce or preferably eliminate the provision of student parking;
 - g. considering the availability of on-street parking on collector and local streets when determining parking requirements; and,
 - h. regularly reviewing and evaluating city-wide parking standards to ensure that parking needs are met while minimizing the provision of excess parking.
- 4.3.2.3. To consider developing guidelines for cash-in-lieu of parking in ***Intensification Areas*** where it can be demonstrated that parking reductions will not have adverse spill-over impacts on surrounding areas, and where the provision of on-street or municipally-provided parking can meet additional parking needs. Revenue generated from cash-in-lieu of parking would be used to support facilities for parking, transit, bicycling and walking.
- 4.3.2.4. To encourage and support the development of central, shared parking facilities in the ***Intensification Areas***, which may result in greater parking and land use efficiencies. Such facilities are encouraged to be provided below grade.
- 4.3.2.5. To work with York Region and the City of Toronto to permit on-street parking on arterial streets where appropriate and where it may support retail and economic development, contribute to a high quality streetscape and a more active street life. The provision of on-street parking in other areas of the City, as needed and/or appropriate, may also be considered.
- 4.3.2.6. To ensure accessible parking supply and design requirements are coordinated with provincial standards developed under the Accessibility for Ontarians with Disabilities Act, as amended, and to monitor the utilization of accessible parking to ensure its adequacy relative to demand, recognizing the aging population.

- 4.3.2.7. To require that parking lots and structures be developed as high-quality examples of good urban design and sustainability, with particular emphasis placed on permeability and safety for pedestrians and cyclists, landscaping and vegetation, stormwater management, high quality lighting, signage and materials and a range of parking space types, including parking for smaller fuel efficient vehicles and bicycles.
- 4.3.2.8. Where parking structures face arterial and collector streets the ground floor frontage shall predominantly consist of retail uses or other active uses that animate the street.
- 4.3.2.9. That municipal design guidelines for parking lots and structures shall be established to guide the development of parking facilities.

4.3.3 Travel Demand Management

As Vaughan's population and travel needs grow, travel demand management will be increasingly necessary to ensure efficient movement. A variety of travel demand management strategies at a number of scales, ranging from building-specific efforts to regional initiatives such as the existing Smart Commute program and Metrolinx's proposed Mobility Hubs, will assist in reducing single-occupant vehicle travel and reducing congestion as a whole.

It is the policy of Council:

- 4.3.3.1. To encourage and support City-wide and local travel demand management programs that reduce single-occupant vehicle travel.
- 4.3.3.2. To initiate a travel demand management program for City of Vaughan employees.
- 4.3.3.3. To work with York Region, Metrolinx and other stakeholders to support Smart Commute and other travel demand management organizations.
- 4.3.3.4. To work with school boards, the police department and residents to implement a Safe Routes to School program in all elementary schools to encourage children to walk to school, rather than relying upon auto transportation.

- 4.3.3.5. To work with developers to provide all new homebuyers with information on available pedestrian, cycling and transit facilities and carpooling options within the community, including local transit routes and schedules.

- 4.3.3.6. To ensure choice and flexibility in mobility options by:
 - a. ensuring, through the implementation of this Plan, the viability of pedestrian, bicycle and transit infrastructure and services as alternatives to driving;
 - b. encouraging alternatives to peak period commuting, including telecommuting, hotelling work environments, zoning permissions for live-work units where appropriate, variable work start times and other means;
 - c. supporting carpooling and ridesharing programs; and,
 - d. adopting a recognition and/or awards program to highlight successful travel demand management initiatives and best practices in Vaughan.

- 4.3.3.7. To facilitate seamless connections between different modes of travel, where appropriate. The City will support:
 - a. park-and-ride lots and passenger pick-up and drop-off facilities at existing and future rapid transit and GO stations;
 - b. working with the Region and the private sector to pursue shared use opportunities for park-and-ride facilities related to the extended Spadina subway within the Jane Street corridor, north of the Vaughan Metropolitan Centre.
 - c. convenient bicycle and pedestrian access to transit stations and stops and appropriate bicycle parking facilities;
 - d. carpool parking and coordination areas; and,
 - e. well-designed and convenient transfer stations and areas for transit users.

- 4.3.3.8. To require the preparation and implementation of a travel demand management program for all Site Plan approval applications for office uses greater than 2,000 square metres or residential apartment buildings with greater than 50 residential units. The travel demand management program shall:
- a. be integrated with required transportation impact assessments submitted to support the proposed development;
 - b. identify design and/or programmatic means to reduce single occupancy vehicle use;
 - c. identify the roles and responsibilities of the landowner with respect to each recommended program and its implementation; and,
 - d. identify the operational and financial roles and responsibilities of the landowner including, but not limited to, program development, implementation and ongoing management and operations of the travel demand management plan and/or program.
- 4.3.3.9. To support the development of car-sharing and bike-sharing programs in Vaughan and to recognize car-sharing as an effective means for reducing parking demand.

4.4 Rail and Goods Movement

4.4.1 Enhancing Rail Transportation

Vaughan's urban structure has been shaped in large part by rail infrastructure that was in place long before Vaughan became a city. Owned by CN and CP, rail lines cross Vaughan's southern boundary and extend north in both the eastern and western portions of the City. CN and CP have major rail yards in Vaughan, including CN's classification yard east of the Vaughan Metropolitan Centre and CP's intermodal yard in northwest Vaughan, both of which play a critical role in continental rail transportation and goods movement.

Vaughan's rail infrastructure plays an important role in safely and efficiently moving people and goods, and is a foundational part of Vaughan's economy. This role will continue. Major manufacturing industries in Vaughan capitalize on the nearby rail lines and terminals to efficiently ship goods over long distances. Areas near rail infrastructure will continue to be protected for industrial and other employment uses to ensure continued use of rail movement.

GO Transit moves thousands of commuters and other riders to and from Vaughan daily. GO Stations will increasingly become focal points for activity, both as transfer points and as **Intensification Areas** develop to capitalize on the presence of significant transit infrastructure. GO ridership is expected to grow significantly, with plans for a number of additional stations in western Vaughan on the proposed Bolton GO line.

It is the policy of Council:

- 4.4.1.1. To ensure the long term protection of rail infrastructure in Vaughan.
- 4.4.1.2. To maximize utilization of rail infrastructure for goods movement by directing industrial development that requires locations adjacent to the rail corridor for business operations, and/or that utilizes rail lines for moving goods and have large volume inputs and outputs, to locations adjacent to rail corridors and yards within **Employment Areas** shown on Schedule 1.

- 4.4.1.3. To maximize utilization of GO rail corridors by:
 - a. directing higher density growth to areas surrounding GO stations;
 - b. requiring mixed-use development in areas surrounding new GO stations;
 - c. encouraging redevelopment of GO station parking lots with mixed-use development; and,
 - d. minimizing the footprint of commuter parking by supporting shared parking, parking structures and effective transit service and connections to GO stations.

- 4.4.1.4. To support rail infrastructure improvements that shall allow for faster and more convenient movement of people and goods by rail.

- 4.4.1.5. To protect rail infrastructure from encroaching adjacent development that may impede operations due to noise or environmental concerns. Land Specifically, development adjacent to a railway right-of-way shall provide:
 - a. appropriate land use compatibility, as may be set out in Ministry of Environment Land Use Compatibility guidelines
 - b. appropriate noise and vibration levels for the adjacent development, as may be set out in Ministry of Environment guidelines on noise and vibration; and,
 - c. appropriate separation distances and/or safety barriers, as may be proscribed by Provincial guidelines or railway operators.

- 4.4.1.6. To require grade separations between the street and rail systems as needed at arterial and collector street/rail junctions without amendment to this Plan.

- 4.4.1.7. To encourage electrification of rail corridors, where feasible, to promote clean air and community and environmental health.

4.4.2 Supporting Goods Movement

Vaughan's large industrial and manufacturing base results in high levels of goods movement throughout the City and especially in *Employment Areas*. The movement of goods is an important contributor to Vaughan's economic wellbeing, and must be supported. While long distance goods movement by rail is generally more efficient than by truck, it is not always feasible. Vaughan has significant resources for goods movement, including the rail corridors and yards, the extensive Provincial highway network, numerous truck terminals and courier hubs; and proximity to Pearson International Airport.

These resources provide the structure for integration of goods movement systems to ensure efficient and effective intermodal networks.

Despite the significant economic benefits of goods movement, there are also adverse impacts, including emissions, noise and truck traffic. This may create additional conflicts as Vaughan grows and intensifies. These impacts are especially of concern in the Vaughan Metropolitan Centre, where Vaughan's largest *Intensification Area* (a provincially designated Urban Growth Centre) is surrounded by *Employment Areas*. The impact of this can be mitigated by providing direct access from *Employment Areas* to Provincial highways and limiting heavy truck traffic-generating uses near ***Intensification Areas***.

It is the policy of Council:

- 4.4.2.1. To support an integrated and efficient transportation network for goods movement, including rail, truck and air travel.
- 4.4.2.2. To work with York Region, Metrolinx, the Province and other agencies to plan for a comprehensive and integrated goods movement system.
- 4.4.2.3. To support convenient access to rail and highway networks from **Employment Areas** and fast and convenient interchanges for transferring goods between truck and rail.

- 4.4.2.4. To encourage employment uses that generate heavy truck traffic to locate in areas near and adjacent to access to Provincial highways.
- 4.4.2.5. To work with York Region and the Province to develop and implement a comprehensive network of truck routes to:
 - a. support efficient truck movement;
 - b. minimize heavy trucks travelling through **Intensification Areas** and **Community Areas**;
 - c. minimize adverse impacts on non-employment land uses; and
 - d. minimize risks posed by potentially hazardous goods.
- 4.4.2.6. To minimize truck activity outside of **Employment Areas** and to reduce adverse impacts from truck traffic on **Community Areas** and **Intensification Areas**.
- 4.4.2.7. To ensure that **Employment Areas** have sufficient truck access in order to support operations.
- 4.4.2.8. To work with York Region and the Province to develop and implement a goods movement master plan for the **Vaughan Metropolitan Centre** and surrounding **Employment Areas** to mitigate the adverse impacts of truck traffic.