

7 Infrastructure

This chapter was amended as part of Official Plan Amendments #81 as part of a 5-year review of the Official Plan. Official Plan Amendment #81 was approved by the Ministry of Municipal Affairs and Housing on 09/07/2012.

7.0 Preamble

The provision of proper infrastructure provides a safe, healthy and efficient living environment. In order to accommodate transportation and physical service needs in Windsor, Council is committed to ensuring that infrastructure is provided in a sustainable, orderly and coordinated fashion. This chapter of the Official Plan provides goals, objectives and policies for the transportation system identified on Schedule 'F': Roads and Bikeways as well as the provision of infrastructure such as sewerage and stormwater management works and utilities. This chapter should be read in conjunction with other parts of this Plan.

7.1 Goals

In keeping with the Strategic Directions, Council's infrastructure goals are to achieve:

<i>SUSTAINABLE INFRASTRUCTURE</i>	7.1.1	Safe, sustainable, effective and efficient infrastructure.
<i>OPTIMAL USE</i>	7.1.2	Optimal use of existing infrastructure.
<i>COMMUNITY TRANSPORTATION</i>	7.1.3	An accessible, affordable and available transportation system.
<i>BALANCED SYSTEM</i>	7.1.4	An environment in which all modes of transportation can play a balanced role.
<i>COORDINATED, EFFICIENT AND COST EFFECTIVE</i>	7.1.5	The provision of infrastructure in a coordinated, efficient and cost effective manner.
<i>INTEGRATED PLANNING</i>	7.1.6	Integration of planning for infrastructure with the planning for growth.
<i>PROTECT NATURAL FEATURES</i>	7.1.7	For development and site alteration on lands located within or adjacent to the significant habitat of endangered species or threatened species; Provincially Significant Wetlands; or, natural heritage features; the

policies contained within Chapter 5 and Chapter 6 of this Plan will also apply.

Activities that create or maintain infrastructure authorized under the *Environmental Assessment Act* process are not considered to be development or site alteration under the *Planning Act*. Wherever possible, those activities should avoid natural heritage features and areas, and if avoidance is not possible, minimize the impact to natural heritage features. Only when avoidance and minimization are not feasible, compensatory mitigation should be applied.

7.2 Transportation System

A safe, sustainable, effective and efficient transportation system is one which meets the needs of all users in a manner consistent with a healthy environment and vibrant economy. In order to achieve this balance, Council will manage Windsor’s transportation system to enhance physical mobility and ensure that the economic, social and environmental needs of the community are met.

7.2.1 Objectives

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| <i>ESTABLISH SYSTEM</i> | 7.2.1.1 | To establish a safe and efficient transportation system that facilitates the movement of people and goods and is appropriate to address projected needs. |
| <i>EFFICIENT USE</i> | 7.2.1.2 | To make efficient use of existing and planned transportation infrastructure. |
| <i>INTEGRATED TRANSPORTATION SYSTEM</i> | 7.2.1.3 | To provide for the integration, coordination and extension of the transportation system within, to and from Windsor. |
| <i>INTERCONNECTED TRANSPORTATION SYSTEM</i> | 7.2.1.4 | To provide a system with functional connectivity and interconnectedness. |
| <i>LAND USE, DENSITY AND MIX</i> | 7.2.1.5 | To promote a land use pattern, density and mix of uses that reduces vehicle trips and supports alternative transportation modes including public transit. |
| <i>INTEGRATING LAND USE AND TRANSPORTATION</i> | 7.2.1.6 | To integrate land use and transportation considerations at all stages of the planning process. |
| <i>TRANSPORTATION CORRIDORS</i> | 7.2.1.7 | To plan and protect transportation corridors and their infrastructure facilities to meet current and projected needs. |

<i>TRUCK ROUTES</i>	7.2.1.8	To establish safe and efficient truck routes within and through Windsor.
<i>PARKING</i>	7.2.1.9	To provide for adequate off-street parking facilities and restrict on-street parking to appropriate areas.
<i>TRANSPORTATION DEMAND MANAGEMENT</i>	7.2.1.10	To enact transportation demand management actions suited to the needs of Windsor.
<i>MINIMIZE CONFLICTS</i>	7.2.1.11	To minimize conflicts within the transportation system.
<i>PROTECT ROADWAYS FROM DRIVEWAY PROLIFERATION</i>	7.2.1.12	To restrict driveway access based on road classification and minimize the number of driveway access points.
<i>WALKING & CYCLING</i>	7.2.1.13	To establish and maintain a city-wide walking and cycling network.
<i>ACCESSIBLE INFRASTRUCTURE</i>	7.2.1.14	To establish and maintain an accessible transportation infrastructure.
<i>ROADS</i>	7.2.1.15	To establish and maintain a safe and efficient road network.
<i>TRANSIT</i>	7.2.1.16	To maintain an efficient transit network.
<i>INTERNATIONAL GATEWAY</i>	7.2.1.17	To uphold and advance Windsor's role as Canada's foremost international gateway.
<i>RAIL SERVICE</i>	7.2.1.18	To support the provision of freight and passenger rail service to Windsor.
<i>VIABLE PORT FACILITIES</i>	7.2.1.19	To ensure accessible and viable port facilities.
<i>RECREATIONAL BOATING</i>	7.2.1.20	To facilitate safe recreational boating from Windsor on the Detroit River and Lake St. Clair.
<i>WINDSOR AIRPORT</i>	7.2.1.21	To support an expanded role for the Windsor Airport in the provision of facilities, infrastructure and operational capabilities.
<i>TRAFFIC CALMING</i>	7.2.1.22	To support the inclusion of traffic calming devices according to a municipal Traffic Calming Policy.

NATURAL FEATURES 7.2.1.23 To direct the transportation systems, where possible, away from Natural Heritage Features and Areas.

7.2.2 General Policies

TRANSPORTATION SYSTEM DEFINITION 7.2.2.1 For the purpose of this Plan, the Transportation System refers to all modes of transportation and their corresponding facilities, including walking, cycling, public transportation, roads, border crossings, rail, air and water transportation.

SCHEDULE F: ROADS & BIKEWAYS 7.2.2.2 The following existing and future components of the transportation system shall be designated on Schedule F: Roads and Bikeways:

- (i) Expressway;
- (ii) Class I Arterial Road;
- (iii) Class II Arterial Road;
- (iv) Class I Collector Road;
- (v) Class II Collector Road;
- (vi) Scenic Drive;
- (vii) Local Road; and
- (viii) Provincial Highway.

TRANSPORTATION MASTER PLAN 7.2.2.3 Council shall require the implementation, monitoring and updating of a long range transportation master plan that:

- (a) Examines the long range transportation system requirements of Windsor its adjacent interdependent municipalities and interconnecting provincial highways;
- (b) Provides principles, policies and strategic plans which address long term transportation system needs from a comprehensive perspective, consistent with this Plan;
- (c) Identifies major problems, deficiencies, or opportunities in the transportation system;
- (d) Identifies and evaluates various alternative solutions available to solve long range transportation system problems and opportunities;

(e) Establishes the preferred solution and corresponding implementation measures; and

(f) Includes a comprehensive public participation program.

COOPERATION & COORDINATION 7.2.2.4 Council shall work to achieve the coordinated planning, expansion and maintenance of the transportation system in cooperation with other public agencies and private organizations to promote increased density of development.

ALTERNATIVE DEVELOPMENT PATTERNS 7.2.2.5 Council shall promote development patterns that support an increase in walking, cycling and public transportation in accordance with the Land Use and Urban Design chapters of this Plan.

BALANCED TRANSPORTATION SYSTEM 7.2.2.6 Council shall develop a balanced transportation system by:

- (a) Adopting strategies and programs that increase public transportation use, cycling and walking;
- (b) Implementing the land use policies of this Plan that provide for a more compact urban form and are intended to reduce the growth in home based trip making;
- (c) Maintaining a road level-of-service that optimizes the use of the existing network;
- (d) Directing the expansion of existing roads or the construction of new ones in association with the application of transportation demand management strategies; and
- (e) Implementing the urban design policies of this Plan that provide for an improved street environment.
- (f) Implementing traffic calming devices in existing neighbourhoods and requiring traffic calming in new neighbourhoods consistent with the Traffic Calming Policy.

TRAFFIC CALMING DEVICES 7.2.2.7 Council may require traffic calming devices on:

- (a) Existing roads;
- (b) All proposed development;
- (c) Infrastructure undertakings;

consistent with the Traffic Calming policy.

<i>MULTI-MODAL FACILITIES</i>	7.2.2.8	Council shall encourage the development of multi-modal transportation facilities at appropriate locations.
<i>TRUCK ROUTE SYSTEM</i>	7.2.2.9	Council shall establish and manage a truck route system to minimize the intrusion of trucks into sensitive areas while providing acceptable access to business and industries.
<i>TRUCK ACCESS</i>	7.2.2.10	Council recognizes that while truck access is necessary for some properties, the adverse effects of truck traffic shall be minimized by: <ul style="list-style-type: none">(a) Discouraging truck traffic in residential and pedestrian oriented areas;(b) Directing land uses which generate substantial truck traffic to appropriate areas in accordance with the Land Use chapter of this Plan;(c) Ensuring the proper design of roads intended to carry truck traffic;(d) Implementing other measures as may be appropriate and necessary.
<i>HAZARDOUS GOODS</i>	7.2.2.11	Council shall restrict the movement of hazardous goods to transportation routes which avoid high risk areas and provide safe and direct access to their intended destination.
<i>PARKING & LOADINGS FACILITIES</i>	7.2.2.12	Council shall require adequate off-street parking and loading facilities as a condition of development approval in accordance with the Land Use chapter of this Plan.
<i>PARKING LOT DESIGN</i>	7.2.2.13	Council shall require parking lots to be designed in accordance with the Urban Design chapter of this Plan.
<i>PUBLIC ON-STREET PARKING</i>	7.2.2.14	Council may allow, restrict or partially restrict on-street parking on specific roads as follows: <ul style="list-style-type: none">(a) On street parking shall not be permitted on Expressways, Class I Arterial Roads and Scenic Drives;(b) On street parking will be discouraged on Class II Arterial Roads and Class I Collector Roads and may only be allowed in areas where adequate and convenient off-street parking is not available; and

		(c) On street parking may be permitted on Class II Collector Roads and Local Roads provided there is sufficient paved road width.
<i>RESTRICT ON-STREET PARKING</i>	7.2.2.15	<p>Council may restrict on-street parking in a manner that does not conflict with future and planned uses of the right of way by:</p> <ul style="list-style-type: none"> (a) Removing on-street parking where the added roadway space is required to install left or right turn lanes; (b) Removing on-street parking where the added roadway space may be required to install bicycle lanes; (c) Removing on-street parking where the added roadway space if required for transit purposes; (d) Removing on-street parking where there is a need to move traffic more efficiently; (e) Removing on-street parking where the City has constructed off street lots to offset the loss of on-street parking.
<i>ON STREET PARKING – STREET SCAPING</i>	7.2.2.16	Council may permit on-street parking as part of a streetscaping plan designed to create a buffer between road traffic and pedestrian sidewalk areas.
<i>BICYCLE PARKING</i>	7.2.2.17	Council shall make provision for bicycle parking spaces by requiring bicycle spaces at all developments.
<i>LAND USE AND TRANSPORTATION</i>	7.2.2.18	<p>Council shall recognize the link between land use and transportation systems by:</p> <ul style="list-style-type: none"> (a) Focusing office development and high-density employment and high density residential in areas which have access to transit and pedestrian amenities; (b) Encouraging commercial and employment uses within 400 metres to 800 metres of residential areas to promote the use of active transportation and to promote transit service.
<i>SUSTAINABLE SITE DESIGN</i>	7.2.2.19	<p>Council shall require the use of sustainable site design during the Site Plan Control process to ensure accessibility for all pedestrians and cyclists by:</p> <ul style="list-style-type: none"> (a) Requiring buildings and access points to buildings be placed to provide convenient access to the public right of way;

- (b) Ensuring the provision of sidewalk and cycling connections to and from the entrances of the development and cycling facilities;
- (c) Ensuring that sidewalk and cycling connections are barrier free throughout the seasons;
- (d) Ensuring that the sidewalk and cycling connections minimize the walking and cycling distance to and from the right of way and
- (e) Encouraging a more street level design and access by planning parking lots in such a way to not adversely impact such access.

*TRANSIT
SUPPORTIVE
DEVELOPMENT*

7.2.2.20 Council shall support transit by planning for compact mixed-use, higher density residential, commercial and employment development within concentrated nodes and corridors that are adjacent to higher order transit corridors.

*MINIMIZING
VEHICLE TRIPS
AND TRAVEL
DISTANCES*

7.2.2.21 Council shall implement land use patterns that promote sustainable travel by locating land uses within reasonable walking or cycling distance by:

- (a) Encouraging development that include an appropriate mix of residential, commercial and employment lands within reasonable walking distance of each other;
- (b) Planning higher density developments in areas along major transportation corridors and nodes;
- (c) Integrating land use and transportation planning decisions by ensuring each fit the context of each other’s specific needs.

*TRAVEL
DEMAND
MANAGEMENT*

7.2.2.22 Council and Transit Windsor will encourage employers to manage their travel demand by:

- (a) Promoting the use of ride sharing and car-pooling to reduce parking demand and to reduce vehicles on nearby streets;
- (b) Promoting the use of bulk or special transit pass purchases by employers for employees that offer discounts over regular transit pass prices and encourage transit usage;
- (c) Encouraging companies to alternate hours of work to reduce the peak hour traffic and parking demand.

*POST
SECONDARY
STUDENT
TRANSPORTATION*

7.2.2.23 Council shall encourage post secondary institutions to implement tuition-based bus pass programs to reduce travel and parking demand.

- COMMERCIAL SCHOOLS* 7.2.2.24 Council shall encourage commercial schools to locate along roadways with transit.
- TRANSIT SUPPORTIVE DESIGN* 7.2.2.25 Council shall support transit friendly design by:
- (a) Planning for compact, higher density developments along nodes and corridors;
 - (b) Creating street layouts that can accommodate transit vehicles;
 - (c) Considering transit in the early stages of planning;
 - (d) Creating grid networked streets;
 - (e) Promoting urban design that encourages walking and cycling; and
 - (f) Requiring entranceways proximate to the public right of way to reduce walking distances for pedestrians, particularly those who are mobility impaired.
- SCHOOL AREA TRANSPORTATION* 7.2.2.26 Council and the School Boards shall promote a safe travel environment near schools by:
- (a) Ensuring that new elementary school locations are central to the area that they intend to serve to reduce the need for buses to transport students;
 - (b) Ensuring that the location of new schools limits the need for children to cross Arterial Roads;
 - (c) Encouraging the use of traffic calming near elementary schools constructed in new neighbourhoods;
 - (d) Coordinating the location of new schools with transit.
 - (e) Maintaining a policy for school areas that may include:
 - (i) Reduced speed limits in school zones;
 - (ii) No stopping areas near school crossings to ensure visibility of crossing guards and children;
 - (iii) Appropriate parking and stopping restrictions along school frontages in consultation with the affected School Board and local residents.

<i>SCHOOL ACTIVE TRANSPORTATION PLANS</i>	7.2.2.27	<p>(f) Requiring all schools to provide adequate on-site parking and loading/unloading facilities.</p> <p>Council shall require that school boards implement active transportation plans for new or refurbished schools that include:</p> <p>(a) Safe walking routes including new sidewalk connections, street crossing improvements and other pedestrian infrastructure within the school property or municipal road allowance fronting the school property;</p> <p>(b) Appropriate way finding signage where necessary; and</p> <p>(c) Sufficient bicycle parking facilities for all students.</p>
<i>CONTROLLED ACCESS DESIGNATION</i>	7.2.2.28	<p>Council may designate any road as a controlled access road, regardless of classification for the purpose of protecting said roadway from driveway accesses that would be detrimental to the road’s intended purpose or function.</p>
<i>SCHEDULE F-1 AND OPA #43</i>	7.2.2.29	<p>Schedule F-1 to the Plan designates those elements that consist of rail corridors and some rail yards. The uses permitted on the lands so designated are those currently in existence and those uses permitted by the zoning by-law.</p>

These elements of the transportation system, while important to broader economic goals, have historically resulted in significant land use impacts on adjacent uses. It is a policy of this Plan that, for uses other than those permitted by the zoning by-law:

- (a) No change to rail uses on, and
- (b) No expansions for non-rail uses of

those rail corridors and rail yards designated on Schedule F-1 will be made without amendment to this Plan as may be required by s. 7.2.8.4.

7.2.3 Pedestrian Network Policies

<i>PEDESTRIAN MOVEMENT</i>	7.2.3.1	<p>Council shall require all proposed developments and infrastructure undertakings to provide facilities for pedestrian movements wherever appropriate by:</p> <p>(a) Requiring safe, barrier free, convenient and direct walking conditions for persons of all ages and abilities;</p>
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- (b) Ensuring that all residents have access to basic community amenities and services and public transit facilities without dependence on car ownership; and
- (c) Providing a walking environment within public rights-of-ways that encourages people to walk to work or school, for travel, exercise, recreation and social interaction.

PEDESTRIAN NETWORK

7.2.3.2 Council shall make pedestrian movement safer and more convenient by:

- (a) Requiring the provision of sidewalks in new developments as follows:
 - (i) On both sides of all Class I and Class II Arterial Roads, Class I and Class II Collector Roads and Scenic Drives; and
 - (ii) On at least one side of all Local Roads.
- (b) Giving priority to the completion of the pedestrian network in areas where there is significant vehicular and pedestrian traffic and policy clause (a) her-in has not been met;
- (c) Installing signalized pedestrian refuge median islands where warranted;
- (d) Maintaining the structural integrity of all existing pedestrian network and walkway connections in neighbourhoods;
- (e) Ensuring the natural surveillance of all existing pedestrian walkway connections in neighbourhoods to optimize safety such that the amount of unobservable space is minimized;
- (f) Requiring street lighting;
- (g) Requiring that all new residential subdivisions incorporate traffic calming measures consistent with the Traffic Calming Policy; and
- (h) Providing special sidewalk treatments at all intersections to make visible the location of the pedestrian crossing to drivers and to provide a tactile warning to visually impaired pedestrians that they are about to cross a roadway.

RECREATIONWAY

7.2.3.3 The Recreationway is designated on Schedule B: Greenway System.

RECREATIONWAY DEVELOPMENT

7.2.3.4 Council shall provide for the development of the Recreationway by:

- (a) Providing for its construction and maintenance;
- (b) Ensuring that the design of the Recreationway complements and connects with the Greenway System, other areas of the city and neighbouring communities;
- (c) Ensuring that new development proposals and infrastructure undertakings include extensions and improvements to the Recreationway; and
- (d) Ensuring that Recreationways are installed concurrently with other transportation infrastructure in new developments.

7.2.4 Cycling Network Policies

CYCLING

7.2.4.1 Council shall require all proposed developments and infrastructure undertakings to provide facilities for cycling movement and parking wherever appropriate.

BIKEWAY DEFINITION

7.2.4.2 For the purpose of this Plan, the Bikeway is a planned network of on and off road cycling facilities.

BIKEWAY DEVELOPMENT

7.2.4.3 Council shall provide for the development of Bikeways by:

- (a) Designating Bikeways on Schedule F: Roads & Bikeways;
- (b) Implementing, monitoring and updating the cycling master plan;
- (c) Providing for the construction and maintenance of both on and off-road cycling facilities;
- (d) Ensuring that the design of Bikeways compliments and connects with the Recreationway and neighbouring communities;
- (e) Ensuring that all new development proposals and infrastructure undertakings include extensions and improvements to Bikeways; and
- (f) Ensuring that Bikeways are installed concurrently with other transportation infrastructure developments.

CYCLING MASTER PLAN

7.2.4.4 Council shall require the implementation, monitoring and updating of a cycling master plan that:

- (a) Addresses the engineering, education, enforcement and

encouragement of commuter and recreation cycling within Windsor;

(b) Provides principles, policies and strategic plans which address commuter and recreation cycling needs from a comprehensive perspective including the integration with other transportation modes and facilities; and

(c) Identifies priorities for new Bikeways and Recreationways.

SAFETY 7.2.4.5 Council shall encourage the separation of cyclists and pedestrians wherever possible to avoid potential conflicts.

7.2.5 Public Transportation Policies

PUBLIC TRANSPORTATION 7.2.5.1 Council shall require all proposed developments and infrastructure undertakings to provide facilities for public transportation wherever appropriate.

IMPROVE PUBLIC TRANSPORTATION 7.2.5.2 Council shall require that the design of development proposals and infrastructure undertakings facilitate easy access to public transportation. In this regard, Council shall:

- (a) Ensure that all new development patterns are supportive of public transportation in accordance with the land use and transportation policies in this Plan;
- (b) Require that the street pattern in new developments allows for the extension of public transportation services;
- (c) Require that sidewalks and other pedestrian facilities connect major traffic generators to public transportation services;
- (d) Encourage the provision of benches, lighting, rest areas and climate shelters for the safety, comfort and convenience of public transportation users;
- (e) Support the coordination and integration of local public transportation services and facilities with inter-regional, regional and international services and facilities;
- (f) Ensure that the design of roads accommodate the requirements of public transportation;
- (g) Encourage transit routes to be within new major employment areas;

- (h) Encourage transit stops to be located within a 400 metre walking distance of high density residential development.

*REGIONAL
PUBLIC
TRANSIT
SYSTEM*

7.2.5.3 Council encourages the creation of a Regional Public Transit System.

7.2.6 Road Network Policies

*ROAD
CLASSIFICATION*

7.2.6.1 The road network within Windsor is classified as follows:

- (i) Provincial Highways;
- (ii) Expressways;
- (iii) Class I Arterial Roads;
- (iv) Class II Arterial Roads;
- (v) Class I Collector Roads;
- (vi) Class II Collector Roads;
- (vii) Scenic Drives; and,
- (viii) Local Roads.

*PROVINCIAL
HIGHWAYS*

7.2.6.2 Council recognizes Provincial Highways as follows:

- (a) Provincial Highways shall be designated on Schedule F: Roads and Bikeways and in secondary plans, where appropriate; and
- (b) The Ministry of Transportation exercises its mandate adjacent to Provincial Highway corridors; as such land abutting Provincial Highways are subject to permit control process of the Ministry of Transportation.

EXPRESSWAYS

7.2.6.3 Council shall provide for Expressways as follows:

- (a) Expressways are designated on Schedule F, as controlled access highways and are to be designated in any secondary plan or master plan where appropriate.

(b) Operational and design characteristics:

- (i) Expressways shall be designed on as a Controlled Access Highway and have a minimum right-of-way width of 100 metres;
- (ii) Expressways shall be designed to carry high volumes of traffic;
- (iii) On street parking shall not be permitted on Expressways;
- (iv) Access to Expressways shall only be facilitated through interchanges or partial interchanges;
- (v) New interchanges shall only be permitted with Class I Arterial Roads and Class II Arterial Roads, Expressways or Provincial Highways;
- (vi) Direct property access shall not be permitted; and
- (vii) Cycling facilities shall not be permitted on Expressways.

*CLASS I
ARTERIAL
ROADS*

7.2.6.4 Council shall provide for Class I Arterial Roads as follows:

- (a) Class I Arterial Roads shall be designated on Schedule 'F' and in any secondary plan or master plan where appropriate.
- (b) Operational and design characteristics:
 - (i) Class I Arterial Roads shall be designated as Controlled Access Highways and shall have a minimum right of way width of 46 metres;
 - (ii) Class I Arterial Roads shall be designed to carry high volumes of traffic;
 - (iii) New intersections shall only be permitted with Provincial Highways, Expressways, Class I Arterial Roads, Class II Arterial Roads or Class I Collector Roads;
 - (iv) Direct property access shall not be permitted to Class I Arterial Roads;
 - (v) Cycling facilities may be permitted on Class I Arterial Roads; and

(vi) On Street parking shall not be permitted on Class I Arterial Roads.

*CLASS II
ARTERIAL
ROADS*

7.2.6.5 Council will provide for Class II Arterial Roads as follows:

- (a) Class II Arterial Roads shall be designated on Schedule 'F' and in any secondary plan or master plan where appropriate.
- (b) Operational and design characteristics:
 - (i) Class II Arterial Roads may be designated as Controlled Access Highways and shall have a minimum right-of-way of 42 metres;
 - (ii) Class II Arterial Roads shall be designed to carry high volume of traffic;
 - (iii) New intersections shall not be permitted with Provincial Highways;
 - (iv) New intersections with local roads shall be discouraged;
 - (v) Cycling facilities may be permitted on Class II Arterial Roads;
 - (vi) On street parking may be removed to facilitate the installation of turn lanes where turn lanes are warranted for capacity or safety reasons; and
 - (vii) Direct property access will be discouraged where other alternatives exist. Where direct property access is required, the use of shared driveways and interconnected on-site circulation systems with adjacent properties may be required to limit the number and spacing of driveways, and where appropriate the City may require support studies and additional information to demonstrate the need for additional access.

*CLASS I
COLLECTOR
ROADS*

7.2.6.6 Council will provide for Class I Collector Roads as follows:

- (a) Class I Collector Roads shall be designated on Schedule 'F' and in any secondary plan or master plan where appropriate.
- (b) Operational and design characteristics:
 - (i) Class I Collector Roads shall be designed to carry moderate volumes of traffic and shall have a minimum right-of-way width of 28 metres;

- (ii) New intersections shall not be permitted with Provincial Highways and Expressways;
- (iii) Direct property access may be permitted with some controls;
- (iv) Cycling facilities may be permitted on Class I Collector Roads; and
- (v) On street parking may be removed to facilitate the installation of turn lanes where turn lanes are warranted for capacity or safety reasons.

*CLASS II
COLLECTOR
ROADS*

7.2.6.7 Council shall provide for Class II Collector Roads as follows:

- (a) Class II Collector Roads shall be designated on Schedule ‘F’ and in any secondary plan or master plan where appropriate;
- (b) Operational and design characteristics:
 - (i) Class II Collector Roads shall be designed to carry moderate volumes of traffic and shall have a minimum right-of-way width of 26 metres;
 - (ii) New intersections shall not be permitted with Provincial Highways, Expressways and Class I Arterial Roads;
 - (iii) Direct property access may be permitted with some controls;
 - (iv) Cycling facilities may be permitted; and
 - (v) On street parking may be permitted.

SCENIC DRIVES 7.2.6.8 Council shall provide for Scenic Drives as follows:

- (a) Scenic Drives shall be designated on Schedule F and in any secondary plan or master plan where appropriate.
- (b) Operational and design characteristics:
 - (i) Scenic Drives shall be designed to carry low to moderate volumes of traffic and shall have a minimum right-of-way width of 24 metres;
 - (ii) New intersections shall not be permitted with Provincial Highways, Expressways and Class I Arterial Roads;

- (iii) All-way stops shall not be permitted;
- (iv) Direct property access may be permitted with some controls;
- (v) Cycling facilities may be permitted;
- (vi) On street parking shall not be permitted; and
- (vii) The municipal streetscape design of the Scenic Drive shall be guided by the urban design policies in this Official Plan.

LOCAL ROADS 7.2.6.9 Council shall provide for Local Roads as follows:

- (a) Operational and design characteristics:
 - (i) Local Roads shall be designed to carry low volumes of traffic and shall have a minimum right-of-way width of 20 metres;
 - (ii) New intersections shall not be permitted with Provincial Highways, Expressways, Class I Arterial Roads and Class II Arterial Roads;
 - (iii) Cycling facilities may be permitted on Local Roads;
 - (iv) On street parking may be permitted; and
 - (v) Direct property access may be permitted with some controls.

ROADWAY INTERSECTIONS: ROUNDABOUTS AND TRAFFIC CIRCLES 7.2.6.10 Council shall encourage the use of roundabouts or traffic circles as follows:

- (a) Council may consider the use of roundabouts or traffic circles where appropriate;
- (b) Council shall encourage a high level of urban design at roundabouts or traffic circle intersections; and
- (c) Where a roundabout or traffic circle is proposed to serve the traffic of a new development, it shall be installed and operating before the opening of that development.

ROADWAY INTERSECTIONS: SIGNALIZED 7.2.6.11 Council shall require the use of signalized intersections where provincial warrants are met.

ROADWAY 7.2.6.12 Where new signals are warranted by a development:

*SIGNALS
WARRANTED BY
NEW
DEVELOPMENT*

- (a) Council shall require the development to pay for the signal's infrastructure, installation and the cost of 5 years maintenance; and
- (b) The signalized intersection shall be installed and operating before the opening of any part of such development.

*ROADWAY
INTERSECTIONS:
SIGNAL
REMOVAL*

7.2.6.13 Council may require the removal of traffic signals from intersections when a review indicates lower than expected volumes of traffic.

*ROADWAY
INTERSECTIONS:
ALL WAY
STOPS*

7.2.6.14 Council shall restrict the use of all way stop intersections in accordance with its All Way Stop Policy.

*PROTECTION OF
TRANSPORTATION
CORRIDORS*

- 7.2.6.15 Council shall protect existing and new transportation corridors by:
- (a) Ensuring that lands identified in transportation master plans or studies for transportation corridors are protected;
 - (b) Protecting abandoned railway or utility right-of-way in the entire length; and
 - (c) Retaining unopened road allowances that have potential for future use.

*NEW ROADWAY
AND WIDENING*

7.2.6.16 Council shall support the construction of new roads and right-of-way widening for the purpose of adding to the travelled portion of a road only when either of the following factors have been met:

- (a) The new road and/or widened right-of-way have been identified as a recommended system improvement in this Plan, the transportation master plan and/or the cycling master plan; or other relevant transportation plan.
- (b) The need for the new road and/or widened right-of-way has been clearly demonstrated through a comprehensive analysis and public consultation process, conducted in addition to the transportation master plan, in accordance with relevant provincial legislation and the resulting road improves the transportation system by:
 - (i) Reducing the use of local roads by non-local traffic;

- (ii) Minimizing conflicts between local and non-local traffic;
- (iii) Improving the level-of-service and road capacity;
- (iv) Minimizing any negative impacts on the social and natural environment of adjacent areas;
- (v) Providing for cycling facilities, as appropriate; and
- (vi) Providing for transit service, as appropriate.

*GUIDELINES
FOR NEW
ROADS*

7.2.6.17 Council shall consider the following criteria when reviewing the roads proposed as a part of a new development:

- (a) The ability to achieve the Urban Design policies of this Plan;
- (b) Where new roads are required to serve a developing area, a logical hierarchy of roads is identified and designated with the capacity to accommodate anticipated traffic generated by the development;
- (c) The design of the road provides for safe traffic movement;
- (d) The carrying capacity of the adjacent roads is sufficient to accommodate the anticipated traffic generated by the proposed development, as well as existing traffic and anticipated growth levels of background traffic;
- (e) The carrying capacity of existing and proposed Class I and Class II Arterial Roads and Class I and Class II Collector Roads is protected by:
 - (i) The use of shared access, where appropriate, for new development; and
 - (ii) Limiting the number of entrances/exits for non-residential development located adjacent to these roads.
- (f) The ability to improve cycling network connections.

*RESIDENTIAL
AREAS*

7.2.6.18 Council shall encourage the development of a peaceful atmosphere in residential areas by:

- (a) Maintaining an adequate system of Collector and Arterial roads to serve residential areas;

- (b) Requiring the provision of appropriate noise control measures and off-street parking;
- (c) Locating medium and high density residential development along Collector and Arterial roads; and
- (d) Requiring the construction of sidewalks in accordance with policy 7.2.3.2;
- (e) Requiring that traffic calming devices be included in the road design of any new residential subdivision in accordance with the Traffic Calming Policy;
- (f) Applying the principles of the Traffic Calming Policy to existing roads in residential areas by ensuring that traffic calming is considered as part of any neighbourhood management plan and that traffic calming devices are placed where deemed to be necessary; and
- (g) Requiring that the impact of noise and the feasibility of achieving noise control objectives must be considered as factors in determining the design of residential areas and that noise barriers be considered only when it has been demonstrated that alternate noise abatement solutions are not feasible.

*NEW
DEVELOPMENT*

7.2.6.19 All proponents of development may be required to complete a Traffic Impact Study to support the feasibility of a proposal, and if feasible, identify appropriate traffic management measures, in accordance with the Procedures chapter of this Plan.

*TRAFFIC
CALMING IN
NEW
RESIDENTIAL
SUBDIVISIONS*

7.2.6.20 Council shall require that all new residential subdivisions include traffic calming measures as an integral part of the road design. Administration will recommend appropriate traffic calming devices in all new subdivisions as follows:

- (a) Traffic calming devices must permit and enhance safe movement by all non-vehicular modes of travel and by bicycle; and
- (b) Traffic calming devices will conform with the provisions of the Traffic Calming Policy and will be considered within the context of the guidelines below:
 - (i) At the intersections of two local roads, roundabouts or traffic circles maybe utilized;
 - (ii) Curb extensions should be required at all intersections of Local

and Collector Roads except where it is determined that they will have an adverse effect on transit or emergency services;

(iii) Within subdivisions, long straight-aways should be avoided. Chicanes should be utilized to avoid long straight-aways exceeding 300 metres in length.

<i>GRATUITOUS CONVEYANCES</i>	7.2.6.21	As a condition of development approval, council shall require gratuitous land conveyances to the Municipality where it has been determined that the existing right-of-way width is insufficient based on the requirements set out in Schedule 'X', or other provisions of this Official Plan. The size and dimension of each such conveyance shall be determined by what is identified in Schedule 'X', or other provisions of this Official Plan. Generally, equal widths of land will be taken from both sides of the road.
<i>GRATUITOUS CONVEYANCES: CONDITION OF DEVELOPMENT</i>	7.2.6.22	<p>Gratuitous land conveyances to the Municipality may also be required as a condition of development approval for, but not limited to any of the following elements:</p> <ul style="list-style-type: none">(a) Corner cut offs;(b) Intersection improvements;(c) Roundabouts;(d) Turn lanes;(e) Acceleration or deceleration lanes;(f) Transit infrastructure, including transit lanes, stations and transit stops including shelters;(g) Cycling infrastructure, including bike lanes and multi-use recreational trails;(h) Bus bays; and(i) Sidewalks.
<i>ROADWAY INTERSECTIONS: CORNER CUT OFFS AND CONVEYANCES</i>	7.2.6.23	<p>The dimensions of corner cut offs that are to be gratuitously conveyed to the Municipality are as follows:</p> <ul style="list-style-type: none">(a) A minimum of a 4.6 metre corner cut off is to be provided at all intersections, except for intersections between two local roads or a local road and a scenic drive;

- (b) Where the intersection is signalized, a minimum of a 6.1 metre corner cut off is required, regardless of the road classification of the two intersecting roads;
- (c) Corner cut offs shall be measured after the taking of linear land conveyances for road widening; and
- (d) Corner cut offs shall be kept clear of all sight obstructions.

OTHER ROADWAY ELEMENTS 7.2.6.24 The dimensions of all other elements to be gratuitously conveyed to the Municipality will be determined on a site specific basis during the development approval process.

TURNING LANES & SPECIAL FEATURES 7.2.6.25 Notwithstanding the right-of-way widths identified in the policies of this Official Plan, Council may require additional land for exclusive turning lanes or special features. The exact width of this additional right-of-way shall be determined on a site-specific basis during the development approval process.

7.2.7 International Border Crossing Policies

ECONOMIC BENEFITS 7.2.7.1 Council shall maximize the economic development potential provided by international cross-border traffic by promoting the development of multi-modal facilities and Employment and Commercial uses at appropriate locations within Windsor.

ADDITIONAL CROSSING 7.2.7.2 Council shall ensure that the construction of an additional international border crossing has minimal negative social, environmental and economic impacts on Windsor.

7.2.8 Rail Transportation Policies

ECONOMIC BENEFITS 7.2.8.1 Council shall maximize the economic development potential provided by rail transportation by promoting the development of Employment uses, including multi-modal facilities, at appropriate locations within Windsor.

SUFFICIENT SERVICE 7.2.8.2 Council shall encourage the provision of rail service sufficient to meet the needs of Employment uses and passenger demands.

MINIMIZE CONFLICT 7.2.8.3 Council shall minimize the conflict among rail, vehicle and pedestrian movements by working with various public agencies and private organizations for the appropriate use of:

- (a) Level crossing controls;
- (b) Grade separated crossings; and

- (c) The construction of fencing adjacent to the railway right-of-way or rail yards.
- ABANDONED RIGHTS-OF-WAYS* 7.2.8.4 Council shall encourage the reuse of abandoned railway rights-of-ways for the enhancement of the transportation system as outlined in the Community Based Strategic Rail Study including:
- (a) Protecting such railway right-of-way in its entire length; and
 - (b) Permitting cycling and recreational facilities.
- FUTURE TRANSPORTATION PLANS* 7.2.8.5 Council shall plan for the eventual retirement of rail lines identified in the Community Based Strategic Rail Study by:
- (a) Encouraging the abandonment of rail lines identified in the Community Based Strategic Rail Study in conjunction with upgrades of other rail lines to accommodate increased rail traffic at increased speeds;
 - (b) Encouraging the development of employment lands or redevelopment of brownfield sites adjacent to abandoned rail corridors; and
 - (c) Initiating a study following abandonment of any rail corridor to determine the best use.
- HIGH SPEED RAIL* 7.2.8.6 Council shall encourage and support the construction of a high speed rail network along the Windsor – Quebec City corridor as well as a high speed rail connection to Detroit.
- IMPROVED RAIL TUNNEL* 7.2.8.7 Council shall encourage the construction of improved rail tunnel facilities.
- DEVELOPMENT ADJACENT TO A CORRIDOR* 7.2.8.8 Council shall evaluate a proposed development adjacent to a Rail Corridor, in accordance with the following:
- (a) All proponents of a new development within 300 metres of a rail corridor, may be required to complete a noise study to support the proposal, and if the need for mitigation measures is determined by such study, shall identify and recommend appropriate mitigation measures, in accordance with the Procedures chapter of this Plan;
 - (b) All proponents of new development, located within 75 metres of a rail corridor, shall complete a vibration study to support the

proposal, and if the need for mitigation measures is determined by such study, shall identify and recommend appropriate mitigation measures, in accordance with the Procedures chapter of this Plan;

- (c) All proponents of new development adjacent to a rail corridor will consult with the appropriate railway company prior to the finalization of any noise or vibration study required by this Plan;
- (d) All proponents of new development abutting a rail corridor shall incorporate appropriate safety measures such as setbacks, berms and security fencing to the satisfaction of the Municipality, in consultation with the relevant public agency and the appropriate railway company.

*DEVELOPMENT
ADJACENT TO A
RAIL YARD*

7.2.8.9 Council shall protect designated rail yards from incompatible development. Accordingly, development adjacent to a Rail Yard designated on Schedule C: Development Constraint Areas will be subject to the following:

- (a) New residential development and other new sensitive land uses, which require a rezoning (exclusive of a zoning by-law consolidation), plan of subdivision or plan of condominium are not permitted within 300 metres of a designated Rail Yard;
- (b)
- (c) All proponents of new residential development and other new sensitive land uses, located between 300 and 1000 metres of a designated Rail Yard (exclusive of the George Avenue Rail Yard unless required by the City), which require a rezoning (exclusive of a zoning by-law consolidation), plan of subdivision or plan of condominium shall complete a noise study to support the proposal, and, if the need for mitigation measures is determined by this study, shall identify and recommend appropriate mitigation measures, in accordance with the procedural policies in this Official Plan;
- (d) All proponents of new development within 75 metres of a designated Rail Yard shall complete a vibration study to support the proposal, and, if the need for mitigation measures is determined by the study, shall identify and recommend appropriate mitigation measures, in accordance with the procedural policies in this Official Plan;
- (e) All proponents of new residential development and other sensitive land uses, within 1000 metres of a designated Rail Yard, which requires a rezoning (exclusive of a zoning by-law consolidation), plan of subdivision or plan of condominium will consult with the appropriate railway company prior to the finalization of any noise and/or vibration abatement study required by this Official Plan; and

- (f) All proponents of new development abutting a rail yard, which require a rezoning (exclusive of a zoning by-law consolidation), plan of subdivisions, plan of condominium or site plan approval, shall incorporate appropriate safety measures such as setbacks, berms and security fencing to the satisfaction of the Municipality, in consultation with the relevant public agency and the appropriate railway company.

SAFETY MEASURES 7.2.8.10 All proposed development adjacent to a railway right-of-way or rail yard shall be required to incorporate appropriate safety measures such as setbacks, berms and security fencing to the satisfaction of the Municipality in consultation with relevant public agencies and the appropriate railway company.

CONSULT RAILWAYS 7.2.8.11 All proponents of development within 500 metres of a railway right-of-way are encouraged to consult with the appropriate railway company prior to the finalization of any noise and vibration abatement study or development proposal.

7.2.9 Water Transportation Policies

ECONOMIC BENEFITS 7.2.9.1 Council shall maximize the economic development potential provided by the Port of Windsor by promoting the development of Waterfront Port and Employment uses, including multi-modal facilities, at appropriate locations within Windsor.

SUFFICIENT PORT LANDS 7.2.9.2 Council shall ensure that sufficient Waterfront Port lands are available for the Port of Windsor to maintain and expand its operations and protect the existing and future port facilities from the incompatible development in accordance with the land use policies in this Official Plan.

ACCESS 7.2.9.3 Council shall require that all waterfront land uses and port facilities have adequate access to and from the land transportation system.

7.2.10 Air Transportation Policies

ECONOMIC BENEFITS 7.2.10.1 Council shall maximize the economic development potential provided by the Windsor Airport by promoting the development of Commercial and Employment uses, including multi-modal facilities in the vicinity of the airport.

DEVELOPMENT WITHIN THE AIRPORT OPERATING AREA 7.2.10.2 Council shall protect the Windsor Airport from incompatible development. Accordingly, all proponents of development within the Airport Operating Area designated on Schedule ‘C’: Development Constraint Areas shall be subject to the following:

- (a) New sensitive land uses shall not be permitted in areas above 30 NEP/NEF as set out on maps approved by Transport Canada;
- (b) Redevelopment of existing sensitive land uses may only be considered above 30 NEF/NEP provided the proponent successfully completes a noise study to:
 - (i) Support the feasibility of the proposal;
 - (ii) Identify and implement appropriate mitigation measures (refer to Procedures chapter);
- (c) Redevelopment of existing residential uses and other sensitive land use in areas above 30 NEF/NEP may only be considered if it has been demonstrated that there will be no negative impacts on the long-term function of the airport;
- (d) Land uses which may cause a potential aviation safety hazard are discouraged;
- (e) Other land uses may be permitted within the Airport Operating Area provided the proponent completes a noise study to support the feasibility of the proposal and, if feasible identify and implement appropriate mitigation measures.

*NOISE AND
VIBRATION
ABATEMENT*

7.2.10.3 Council shall ensure that new development in the vicinity of the Windsor Airport includes appropriate noise and vibration abatement measures in accordance with established off-airport land use planning practices.

7.2.11 Detroit Windsor Tunnel Constraint Area Policies

The following policies apply to lands identified on Schedule ‘C’: Development Constraint Areas and Schedule ‘E’: City Centre Planning District and should be read in conjunction with Land and Infrastructure chapters of this Plan.

*GENERAL
BOUNDARIES*

7.2.11.1 For the purpose of this plan, the Detroit-Windsor Tunnel Development Constraint Area is defined as the triangular area of land beginning at the portal of the Detroit-Windsor Tunnel and Park Street East, extending Northeast to the Detroit River, as shown on Schedule ‘C’: Development Constraint Areas and Schedule ‘E’: City Centre Planning District.

*INCOMPATIBLE
DEVELOPMENT*

7.2.11.2 Council shall protect the integrity of the Detroit-Windsor Tunnel from damage as a result of incompatible construction and maintenance activities in the Detroit-Windsor Tunnel Development Constraints Area.

<i>DEVELOPMENT CRITERIA</i>	7.2.11.3	<p>New Development, as well as renovations, minor additions and alterations to existing buildings adjacent to the Detroit-Windsor Tunnel is permitted provided that the development does not:</p> <ul style="list-style-type: none"> (a) Negatively impact the structure of the Detroit-Windsor Tunnel; (b) Have a negative impact on the maintenance of the Detroit-Windsor Tunnel; and (c) Take place in a manner that the continued operation and maintenance of the Detroit-Windsor Tunnel does not have a negative impact on the proposed development.
<i>MUNICIPAL WORKS</i>	7.2.11.4	Any municipal works in the right-of-way within the Detroit-Windsor Tunnel Constraint Area shall be bound to the policies set forth in this section.
<i>SUPPORT STUDIES</i>	7.2.11.5	Proponents of development within or adjacent to the Detroit-Windsor Tunnel Development Constraint Area as designated on Schedule ‘C’: Development Constraint Areas and Schedule ‘E’: City Centre Planning District shall successfully complete a geotechnical study, prepared by a qualified professional, to confirm that the development will be compatible with the Detroit-Windsor Tunnel.
<i>REVIEW PROCEDURE</i>	7.2.11.6	<p>The qualified professional who completed the required geotechnical investigation shall:</p> <ul style="list-style-type: none"> (a) Sign and submit a statement, to the Municipality, confirming that the site is suitable for the proposed development; and (b) Submit all documentation to the Municipality regarding the geotechnical investigation for review and concurrence by an independent peer reviewer, prior to the issuance of any building permit.
<i>PEER REVIEW</i>	7.2.11.7	Where an independent peer review is required by the Municipality, the proponent shall be required to pay for the review.

7.3 Infrastructure

The provision of infrastructure such as sewerage and stormwater management works and utilities allows all land uses to serve their intended function and ensures a safe and healthy environment. In order to accommodate sustainable, efficient and effective infrastructure, Council will ensure that they are provided and maintained in an orderly and coordinated fashion.

7.3.1 Objectives

<i>COORDINATED, EFFICIENT AND COST EFFECTIVE</i>	7.3.1.1	To provide infrastructure in a coordinated, efficient and cost effective manner to accommodate projected needs.
<i>INTEGRATED PLANNING</i>	7.3.1.2	To integrate the planning for infrastructure with the planning for growth so that these are available to meet current and projected needs.
<i>MAXIMIZE USE OF EXISTING INFRASTRUCTURE</i>	7.3.1.3	To maximize and optimize the use of existing infrastructure and corridors prior to the extension and creation of new ones.
<i>MAINTAIN & UPGRADE</i>	7.3.1.4	To establish priorities for the maintenance and up-grading of existing infrastructure.
<i>SUFFICIENT SUPPLY</i>	7.3.1.5	To ensure that there is sufficient infrastructure to accommodate anticipated growth in Windsor.
<i>NATURAL & RECREATION OPPORTUNITIES</i>	7.3.1.6	To encourage the integration of natural and recreational opportunities with physical services.
<i>STORMWATER MANAGEMENT</i>	7.3.1.7	To manage stormwater to effectively control the quality and quantity of urban runoff.
<i>WATER QUALITY</i>	7.3.1.8	To protect, manage and enhance water quality and quantity.
<i>SOLID WASTE MANAGEMENT</i>	7.3.1.9	To provide for the minimization and management of solid waste.
<i>WATER CONSERVATION</i>	7.3.1.10	To promote water conservation measures.
<i>SEWAGE MANAGEMENT</i>	7.3.1.11	To provide and maintain sanitary sewers, pumping stations and sewage treatment plans with sufficient capacity to accommodate the existing and future development.
<i>NATURAL HERITAGE</i>	7.3.1.12	To direct infrastructure, where possible, away from Natural Heritage Features and Areas.

7.3.2 General Policies

<i>INFRASTRUCTURE DEFINITION</i>	7.3.2.1	For the purpose of this Official Plan, infrastructure include sewerage, stormwater management and water works, waste management systems, electric power, communications, telecommunications, transit corridors, transportation corridors, and oil and gas pipelines and associated facilities.
<i>MANAGEMENT PLAN</i>	7.3.2.2	Council may require the preparation, implementation and monitoring of an Infrastructure Management Plan for Municipally owned and/or operated infrastructure, such as sewerage and stormwater management works, as a basis to: (a) Prioritize strategies for the maintenance and rehabilitation of existing infrastructure and the provision of new infrastructure; and (b) Monitor available capacity for new development.
<i>NEW DEVELOPMENT</i>	7.3.2.3	Council shall require all new developments to have full municipal infrastructure available, or agreements in place to provide such infrastructure, as a condition of approving a development proposal.
<i>INDIVIDUAL ON-SITE SEWAGE SERVICES</i>	7.3.2.4	Council shall not permit development on individual on-site sewage services beyond existing farm living lots.
<i>NEW INDIVIDUAL ON-SITE SEWAGE SERVICES</i>	7.3.2.5	Council shall not permit the installation of individual on-site sewage services in new developments.
<i>MONITOR CAPACITY</i>	7.3.2.6	Council shall monitor the available uncommitted reserve capacity of existing Municipally owned and/or operated infrastructure to ensure that they can accommodate projected long-term growth.

7.3.3 Infrastructure Provision Policies

<i>INFILLING GIVEN PRIORITY</i>	7.3.3.1	Council shall encourage the development of existing serviced, underutilized or undeveloped lands within Windsor prior to the extension of municipally owned and/or operated infrastructure to vacant areas within Windsor.
<i>EVALUATING A PROPOSED EXTENSION</i>	7.3.3.2	Council shall only approve the extension of municipally owned and/or operated infrastructure within Windsor when the following factors have been addressed:

- (a) The need for the extension of infrastructure has been clearly demonstrated through a comprehensive analysis and public consultation process completed in accordance with relevant provincial legislation;
- (b) The resulting extension provides infrastructure to areas which are currently designated and planned for development in accordance with the Land Use chapter of this Plan and secondary plans, where appropriate;
- (c) The extension of infrastructure provides for a logical phasing of development.

<i>ADJACENT MUNICIPALITIES</i>	7.3.3.3	Council shall consider the provision of municipal infrastructure to adjacent municipalities and/or County of Essex in accordance with section 10.5 of this Plan.
<i>NATURAL & RECREATION OPPORTUNITIES</i>	7.3.3.4	Council shall promote the integration of the natural environment, the Greenway System, Bikeways and Recreationways with physical service corridors where appropriate. New corridors will not be promoted within natural environment areas.
<i>MINIMIZE NEGATIVE EFFECTS</i>	7.3.3.5	Council shall require that the provision, expansion or modification of infrastructure minimize negative effects on existing neighbourhoods, adjacent land uses and the natural environment.
<i>CONSOLIDATE INFRASTRUCTURE</i>	7.3.3.6	Council shall require the consolidation of infrastructure within rights-of-ways.
<i>INTEGRATE WITH DEVELOPMENT PATTERN</i>	7.3.3.7	Council shall encourage the coordinated planning of future physical service routes, easements and corridors in cooperation with other physical service providers to ensure their integration within the established or anticipated pattern of development.
<i>INFRASTRUCTURE PLANS</i>	7.3.3.8	<p>Council shall require an infrastructure plan or other suitable study completed in accordance with relevant provincial legislation prior to the approval of a development proposal that determines:</p> <ul style="list-style-type: none"> (a) The routing, sizing, cost sharing and timing of infrastructure; (b) How any negative impacts on existing infrastructure, the environment and the surrounding area will be addressed; and (c) Other issues as appropriate (see Part V: Implementation).
<i>INTERIM INFRASTRUCTURE</i>	7.3.3.9	Council may allow interim servicing solutions prior to the provision of

full municipal infrastructure in order for a development to proceed, but shall ensure that:

- (a) Such interim infrastructure solutions will not create adverse capacity problems elsewhere in the system or prejudice the Municipality’s achievement of an infrastructure solution for the surrounding area; and
- (b) Any interim infrastructure solution will not create any adverse effects on public health, safety or the environment.

INTERIM INFRASTRUCTURE AGREEMENT 7.3.3.10 As a condition of approval of interim infrastructure, Council shall require an agreement which addresses issues such as the installation and termination of the interim infrastructure, and the installation of permanent infrastructure.

7.3.4 Sewerage and Stormwater Management Works Policies

COMBINED SEWER SEPARATION 7.3.4.1 Council shall provide for the continued phasing-in of the separation of combined sewers based on the direction in the Infrastructure Management Plan.

DETERMINING NEEDS 7.3.4.2 Council shall provide for the rehabilitation of the existing sewerage system with priority given to those areas identified in an Infrastructure Management Plan where:

- (a) The existing sewer is in a state of physical collapse posing a hazard to personal property, health, safety and/or the environment;
- (b) The existing sewer is in danger of imminent collapse and where other immediate physical service or road construction is required within the same right-of-way; and
- (c) The rehabilitation of the sewer is required to prevent backup of domestic sewage from existing overtaxed sewers or where required to reduce demands on the pollution control plants.

IMPLEMENT MEASURES 7.3.4.3 Council shall provide for the implementation of preventative measures that reduce demands on the sewerage system by:

- (a) Promoting the disconnection of roof drainage systems, weeping tiles, where appropriate, and other sources of inflow or infiltration into the sewerage system;
- (b) Requiring that new development be constructed with devices to

assist in the prevention of potential surcharging and basement flooding;

(c) Separating road drainage from combined systems and directing road drainage to new storm sewers or storm relief sewers; and

(d) Other measures as may be appropriate.

<i>POLLUTION CONTROL PLANTS</i>	7.3.4.4	Council shall protect pollution control plants from incompatible development in accordance with the Environment chapter of this Plan.
<i>STORMWATER MANAGEMENT FOR DEVELOPED AREAS</i>	7.3.4.5	The Municipality may develop stormwater management plans for developed areas of Windsor to control and improve the quality and quantity of runoff.
<i>STORMWATER MANAGEMENT FOR PROPOSED DEVELOPMENT</i>	7.3.4.6	Council, in consultation with appropriate public agencies may require a proponent of development to submit studies of stormwater runoff and its impact on the water quality and quantity of receiving watercourse based on the Ministry of Environment’s current provincial guideline manual for stormwater management design.
<i>DEVELOPMENT PROPOSALS</i>	7.3.4.7	Council shall require proponents of development that require stormwater management systems to: <ul style="list-style-type: none">(a) Use stormwater management measures to manage the storage and controlled flow of water to receiving watercourses;(b) Use stormwater management measures which prevent siltation and erosion and do not negatively impact the water quality of receiving watercourses;(c) Consider, where appropriate, enhancing the vegetation, wildlife habitats and corridors in and along the stormwater management system and the receiving watercourse; and(d) Consider, where appropriate, providing public access to and along the stormwater management system and receiving watercourses for recreation.
<i>BEST AVAILABLE METHODS</i>	7.3.4.8	Council, in consultation with appropriate public agencies shall require proponents of development to employ the best available methods in the planning, construction and eventual use of storm water management systems.

INTER-MUNICIPAL STORMWATER 7.3.4.9 The Municipality shall accommodate the flow of stormwater across municipal boundaries in cooperation with adjacent municipalities.

MUNICIPAL OWNERSHIP 7.3.4.10 The Municipality will operate and maintain stormwater management facilities under its ownership.

7.3.5 Solid Waste Management Policies

SOLID WASTE MANAGEMENT MASTER PLAN 7.3.5.1 Council shall adopt a solid waste management master plan which identifies objectives for the management of solid waste within Windsor.

PROVIDE FACILITIES 7.3.5.2 Council shall encourage all development proposals to provide adequate waste disposal and recycling facilities.

ACTIVE & FORMER WASTE DISPOSAL SITES 7.3.5.3 All proponents of development on and in the vicinity of active and former waste disposal sites shall be required to complete a study to support the feasibility of the proposal and, if feasible, identify appropriate mitigation measures in accordance with the Environment chapter of this Plan.

NEW SITES 7.3.5.4 Council shall provide for the development of new solid waste management facilities in accordance with provincial legislation, policy and appropriate guidelines.

7.3.6 Utilities and Other Infrastructure Policies

COOPERATION 7.3.6.1 Council shall cooperate with utility providers in the planning, construction and operation of networks for the adequate supply and distribution of infrastructure.

SETBACKS 7.3.6.2 Council shall require sufficient setbacks and buffer zones between major infrastructure rights-of-ways, associated facilities and adjacent land uses, in accordance with provincial standards and guidelines.

ELECTRIC POWER FACILITIES 7.3.6.3 Electric power supply facilities, such as transmission lines, transformer stations and distribution stations shall be permitted in any land use designation without amendment to this Plan, provided the planning of all such facilities are approved under, and satisfy the provisions of, relevant provincial legislation.

TELECOMMUNICATION FACILITIES 7.3.6.4 Telecommunication facilities, such as aerial and fibre optic cables, pedestals, outside plant interfaces (OPI) and walk-in-cabinets (WIC) shall

be permitted in all land use designations without amendment to this Plan, provided the planning of all such facilities area approved under, and satisfy the provisions of relevant federal and provincial legislation and Industry Canada's procedures.

CONSULTATION 7.3.6.5 Utility providers, including electric power supply companies, communication companies, and telecommunication companies shall be encouraged to consult with the Municipality and the affected residents during the planning of new facilities, where applicable.

MAJOR WATER USERS 7.3.6.6 Council shall encourage uses requiring large volumes of water to:

- (a) Locate in areas of Windsor where there is sufficient capacity in the water distribution network to accommodate such uses; and
- (b) Utilize water recycling procedures to reduce the demand for water, and lower the volume of waste water discharge and to reduce the impact of effluents on receiving watercourses.