

City of Toronto

Downsview Area Secondary Plan Transportation Master Plan Report

Prepared by:

AECOM 300 Water Street Whitby, ON, Canada L1N 9J2 www.aecom.com

905 668 9363 tel 905 668 0221 fax

Project Number: 60117939

Date: January, 2010

Statement of Qualifications and Limitations

The attached Report (the "Report") has been prepared by AECOM Canada Ltd. ("Consultant") for the benefit of the client ("Client") in accordance with the agreement between Consultant and Client, including the scope of work detailed therein (the "Agreement").

The information, data, recommendations and conclusions contained in the Report:

- are subject to the scope, schedule, and other constraints and limitations in the Agreement and the qualifications contained in the Report (the "Limitations")
- represent Consultant's professional judgement in light of the Limitations and industry standards for the preparation of similar reports
- may be based on information provided to Consultant which has not been independently verified
- have not been updated since the date of issuance of the Report and their accuracy is limited to the time period and circumstances in which they were collected, processed, made or issued
- must be read as a whole and sections thereof should not be read out of such context
- were prepared for the specific purposes described in the Report and the Agreement
- in the case of subsurface, environmental or geotechnical conditions, may be based on limited testing and on the assumption that such conditions are uniform and not variable either geographically or over time

Unless expressly stated to the contrary in the Report or the Agreement, Consultant:

- shall not be responsible for any events or circumstances that may have occurred since the date on which the Report was prepared or for any inaccuracies contained in information that was provided to Consultant
- agrees that the Report represents its professional judgement as described above for the specific purpose described in the Report and the Agreement, but Consultant makes no other representations with respect to the Report or any part thereof
- in the case of subsurface, environmental or geotechnical conditions, is not responsible for variability in such conditions geographically or over time

The Report is to be treated as confidential and may not be used or relied upon by third parties, except:

- as agreed by Consultant and Client
- as required bylaw
- for use by governmental reviewing agencies

Any use of this Report is subject to this Statement of Qualifications and Limitations. Any damages arising from improper use of the Report or parts thereof shall be borne by the party making such use.

This Statement of Qualifications and Limitations is attached to and forms part of the Report.



300 Water Street Whitby, ON, Canada L1N 9J2 www.aecom.com

905 668 9363 tel 905 668 0221 fax

January 29, 2010

Sharon Hill Project Manager City of Toronto 5100 Yonge Street Toronto, Ontario M2N 5V7

Dear Ms. Hill:

Project No:60117939Regarding:Downsview Area Secondary Plan Review –Transportation Master Plan Report

Please find attached a final copy of the Phase 4 Transportation Master Plan Report for this project.

Sincerely, **AECOM Canada Ltd.**

Kevin Jones Senior Project Manager

KJ:kj Encl. cc:

Distribution List

# of Hard Copies	PDF Required	Association / Company Name

Revision Log

Revision #	Revised By	Date	Issue / Revision Description	
1	K. Jones	Jan 29, 2010	Address City Review Comments	

AECOM Signatures

.

Report Prepared By:

Kevin Jones, Senior Project Manager

Report Reviewed By:

Kevin Jones, Senior Project Manager

Executive Summary

Study Background & Process

The current Downsview Area Secondary Plan was approved by City Council in 1999 (OPA 464) as an amendment to the former City of North York Official Plan. As part of the Downsview Area Secondary Plan, a Transportation Master Plan (TMP) was prepared for the Downsview area. In 2001, the TMP was amended (OPA 504) to include the approval of a mix of uses for the lands at the southwest and southeast corners of Allen Road and Sheppard Avenue West.

The new City of Toronto Official Plan was approved by the Ontario Municipal Board in July 2006 and contains the Downsview Area Secondary Plan, Part 7 of Chapter 6 of the Official Plan, mostly in its original form. In addition to the new Official Plan's planning policies, goals and objectives, a new intermodal transit station between TTC and GO Transit is being planned in the Secondary Plan area where the CN rail intersects Sheppard Avenue West, as part of the proposed Spadina Subway Extension to York Region.

In June of 2008, ParcDownsiview Park Inc. developed a land use concept plan for the redevelopment of their lands within the context of many of the updated federal, provincial and municipal land use planning objectives. In light of these events and a renewed vision by ParcDownsview Park to redevelop their lands, the City of Toronto is undertaking a review of its current Downsview Area Secondary Plan policies and objectives, to consider the intensification of transit-supportive land-uses as a result of the major local and regional transit investment in the area. The Secondary Plan review includes an update to the 1999 TMP for the Downsview area.

This TMP update was undertaken to assess and identify, at a strategic level, the transportation infrastructure requirements that are necessary to support the growth and development within the Downsview Area Secondary Plan. The TMP was conducted in accordance with the master planning process following the requirements of Phases 1 and 2 of the Municipal Engineers Association Municipal Class Environmental Assessment (EA) document (October 2000, as amended in 2007), which is an approved process under the Ontario Environmental Assessment Act.

Several alternative strategies were identified and evaluated taking into consideration the environmental and social impacts as well as financial considerations in order to develop the recommended plan.

Consultation

The TMP incorporates public and agency comments received during the course of the study. The communication and community participation program for the review was varied and included:

• 4 Community meetings (September 2008, October 2008, December 2008, September 2009);



study area &	DOWNOVEWSTUDY AREA
secondary plan area	DOWNSVIEW SECONDARY PLAN
pA 23 Jan 20 0 500 1000 1000m	PHPKS OPEN SPECE





City Planning Proposed Bile Lanes City of Toronto Bile Plan Proposed Bile Lanes City of Toronto Bile Planes City of Toronto Bile Planes Bile Lanes City of Routes City

Potential Future Bike Lane
 Potential Future Multi-Use Routes

- 2-day weekend drop-in (November 2008);
- 7 Community Reference Group Meetings (September 2008, October 2008, November 2008, March 2009, April 2009, May 2009, June 2009);
- 2 Landowner Meetings (September 2009, December 2009);
- Individual stakeholder meetings;
- Newsletters available in English, Italian, Tagalog and Vietnamese (September 2008, December 2008, June 2009, February 2010); and,
- A website which posted all consultant memorandums and reports, community meeting presentations and presentation panels, a summary of community comments received, as well as meeting notices and newsletters.

To the extent possible and within the context of the transportation comments received, the Recommended Plan has incorporated a variety of infrastructure recommendations and policies to address the comments received during the study. The recommendations and policies relate to transportation demand management strategies as well as improvements and investments in:

- the pedestrian and cyclist network including sidewalks, multi-use pathways, neighbourhood pedestrian connections, special pedestrian corridors, shared roadway, and bicycle lanes;
- transit investments including a new "circulator service" providing access throughout the Secondary Plan area which integrates with the extension of the Spadina Subway, a new TTC subway and GO Transit station in the study area, the Dufferin Street bus-only lanes and potential light rail service along the Finch and Jane Street corridors; and
- a new comprehensive road network that provides additional capacity and network connectivity needed to respond to future land use changes

Recommended Transportation Master Plan

The Recommended Transportation Master Plan for the Downsview Area Secondary Plan is based upon and designed to accommodate a total of 9,800 new residential units and 1.57 million square metres of non-residential floor space. This translates into an estimated 19,600 new residents and 22,000 new jobs in the Secondary Plan Area.

The TMP provides for a multi-modal transportation system to 2031 and includes plans, policies and strategies for a comprehensive transit network, pedestrian/cycling infrastructure, and road network. The planned extension of the Spadina Subway provides the catalyst for significant improvements in transit use in the Secondary Plan area and provides a significant benefit in terms of managing the growth in background auto traffic on the Study Area road network

Today non-auto trips represent between 24 and 29% of peak period travel in the broader study area. By 2031, it is estimated that between 30% and 50%



Multi-Use Paths

Special Pedestrian Corric

Neighbourhood Pedestrian Connectio



- Collector
- Grade Separated Structures
- At Grade Ball Crossings

of trips within the Downsview Area Secondary Plan will be made by non-auto modes of travel, including public transit, walking and cycling.

The achievement of these targets is not only good public policy, but is critical to the success of the plan. As such, specific policies and strategies for parking management, transportation demand management and active transportation were incorporated into the TMP to manage the growth in auto travel in the Secondary Plan area. Using an integrated planning and public consultation process this project:

- Identifies future transportation demands in the Secondary Plan based on recommended growth strategy, prevailing demographic trends, and travel patterns within and through the Greater Toronto Area;
- Evaluates policies and transportation strategies required to accommodate planned growth and promote a greater balance between transportation modes while protecting the ability to move people, goods and services in a manner that support economic growth;
- Recommends short and long term infrastructure requirements considering the benefits and impacts of social/cultural, economic and environmental implications;
- Identifies and implementation strategy that integrates infrastructure with growth and the fiscal realities currently faced by municipalities throughout the province; and
- Establishes a plan monitoring framework that recognizes that a Transportation Master Plan is a 'living' document and must be adaptable to changes in land use development patterns, travel behaviour, and changes in policy direction and other conditions in the City.

Major Infrastructure Improvements

Based on the study findings and input from agencies and the public, the major infrastructure improvements in the TMP are listed below. The estimated capital cost for the road network infrastructure in the recommended plan is estimated at just under \$100 Million (in 2009 dollars).

Following approval of the TMP, the City will develop a funding strategy for the required infrastructure. This approach should be based on the principal that "Growth should pay for Growth" but it must also recognize that many of the improvements in the Secondary Plan area have benefits that extend beyond the Downsview area.

While the TMP addresses the need and justification at a broad level, more detailed studies for those projects identified a Schedule C projects included in the TMP will be completed at a later date following the Municipal Class EA process. A listing of major projects is summarized in the table below.

Major Infrastructure Projects



0

At Grade Rail Crossings ==== Potential Future Minor Arterial

Major Infrastructure Projects

щ	Project Description	Project Limits	Status		
#	Schedule A Projects				
	New Transit Circulator Route	Keele St / National Urban Park Perimeter Road	Pre-approved activities – public to be		
	New Transit Circulator Route	Transit Road Extension / Allen District / Sheppard Avenue West	advised prior to project implementation.		
			Note that this assumes the use of existing lanes on new road to provide normal transit service. If the City / TTC undertakes a widening to provide dedicated transit only lanes, this project would be classified as a Schedule C project.		
		Schedule B Projects			
5	Allen District Road C	Road A to N-S Road - Build Toronto lands			
6	Allen District Road D	Transit Road Ext. to N-S Road-Build Toronto lands (including intersection improvements to Allen Rd)	The Transportation Master Plan		
7	Allen District Road E	Transit Road Ext. to N-S Road-Build Toronto lands	Class EA project requirements		
17	National Park Entrance Road H	E-W Road (8) to Sheppard Ave	(Phases T and 2 of the Municipal Class EA) Design and construction		
19	Stanley Greene Rd J	NP Perimeter Rd G to Limit of Park	will be carried out at a later date		
21	William Baker Rd K	Keele St to N.P. Entrance Rd H			
22	William Baker Rd L	E-W Road F to Road K	-		
24	Chesswood District - Road N	Transit Rd Extension to Sheppard Ave W	-		
26	Allen District Rd U	Allen District Rd B (4) to Wilson Heights Blvd			
		Schedule C Projects	Γ		
1	I ransit Road Extension	Existing Transit Road to Road A	-		
2	I ransit Road Extension	From Road A to Chesswood Dr	-		
3	Road A	From Transit Road to Sneppard Ave	4		
4	N-S Road - Build Toronto lands	From Allen Road to Sneppard Ave			
		(Including Removal of ramps to wilsoff Heights and Transit Road / Allen Road intersection)			
8	E-W Road E	Keele St to CN Rail line	The Transportation Master Plan		
0 9	E-W Road F	CN Rail Line to Transit Road Extension	addresses Phase 1 and 2		
10	E W Road F	CN Pail line Undernass	requirements of Schedule C		
10	Notional Bark Barimeter Bood C	E W Bood E (0) to Corl Holl Bd	Municipal Class EA projects. Phases		
10	National Park Perimeter Road G		Schedule C project at a later date		
12	National Park Perimeter Road G	Call Hall Ru to Cin Rall Line	Design and construction will be		
13	National Park Perimeter Road G	Ch Rail Life to Starley Greene N-5 Rd (20)	carried out after all Schedule C		
14	National Park Perimeter Road G	Stanley Greene Rd (20) to Keele St	requirements are met.		
15	National Park Perimeter Road G				
10	Steploy Croope Rd J	Call Hall Ru to E-W Road F			
20	William Baker Pd M	Koolo St to N.P. Entranco Pd H	-		
25	Stanley Greene E-W Rd	Keele St to W of CN Rail line			
25	Keele Street Widening - Centre	Wilson Avenue to Grandravine Drive	-		
	Turn Lane				
		Federal EA Proiects	1		
	National Park Entrance Road	Keele St to Carl Hall Rd	It is assumed that new roadways		
18	Carl Hall Road Reconstruction	NP Entrance Rd H to N.P. Perimeter Road G	within and serving the National Park will fall under the Canadian Environmental Assessment Act and will be subject to the Federal Environmental Assessment Process.		

Table of Contents

Statement of Qualifications and Limitations Letter of Transmittal Distribution List Executive Summary

1.	Intro	Introduction & Study Background		
	1.1	Purpose of the Study	1	
	1.2	Study Area	3	
	1.3	Policy Context	4	
	1.4	Municipal Class EA Process	15	
	1.5 1.6	Summary of Phase 1 Report – Background Review and Existing Conditions Summary of Phase 2 Report – Identification, Assessment & Evaluation of Alternatives	17 20	
	1.7	Summary of Phase 3 Report – Identification of Preferred Alternative		
	1.8	Summary of Consultation During Study	31	
2.	Reco	mmended Transportation Plan	32	
	2.1	Transit Network Plan	33	
	2.2	Pedestrian & Cycling Network Plan	35	
	2.3	Road Network Plan	39	
3.	Polic	ies to Support the Plan	51	
	3.1	Parking Management	51	
	3.2	Transportation Demand Management Policies	57	
	3.3	Policies to Support Active Transportation	59	
4.	Imple	mentation of the Plan	61	
	4.1	Implementation Phasing and Priorities		
	4.2	Infrastructure Cost Estimates & Financing	67	
	4.3	Future Environmental Assessment Requirements	69	
	4.4	Plan Monitoring	72	

List of Figures

Figure 1.	Downsview Area Secondary Plan Review Study Area	3
Figure 2.	Official Plan Map 2 – Urban Structure	7
Figure 3.	Higher Order Transit Corridors	8
Figure 4.	25-Year Plan for Regional Rapid Transit and Highway Improvements	10
Figure 5.	Downsview Area Secondary Plan Land Use Areas	12
Figure 6.	Municipal Class EA Process	
Figure 7.	Phase 2-Emerging Preferred Road & Transit Network	
Figure 8.	Recommended Transit Network Plan	33
Figure 9.	Proposed Cycling Network	
Figure 10.	Recommended Pedestrian Network	37

Figure 11.	Recommended Road Network	40
Figure 12:	Recommended Road Right of Way Widths	44
Figure 13.	45m ROW - Allen Road Sections	45
Figure 14.	30m ROW – N/S Road through Sheppard District	46
Figure 15.	Transit Road Extension – 27m ROW	47
Figure 16.	E-W Perimeter Road – 27m ROW	47
Figure 17.	N-S Road, Build Toronto Lands – 27m ROW	48
Figure 18.	N-S Road, Stanley Green District – 27m ROW	48
Figure 19.	E-W Road, Keele Street to Transit Road Extension – 27m ROW	49
Figure 20.	Wilson Heights Boulevard (N. of Clanton Park Rd) – 27 m ROW	49
Figure 21.	Typical 18.5m ROW	50
Figure 22.	Typical 20.0m ROW	50
Figure 22:	Assumptions on Construction of Recommended Road Network	63
Figure 23:	Summary of Roadway Staging Plan	66
Figure 24.	Road Improvements	69

List of Tables

Table 1.	Recommended Land Use Plan	32
Table 2.	Summary of Parking Standards	52
Table 3.	Recommended Base Parking Standards	55
Table 4.	Future 2021 Build Out of Development by District	62
Table 5.	Future 2021 Traffic Demands used in Staging Analysis	62
Table 6.	Summary of Staging Analysis Results	64
Table 7.	Unit Cost Assumptions, Road Network Improvements	67
Table 8.	Cost Estimate – Major Road Improvements	68
Table 9.	EA Requirements – Road and Transit Improvements	71

Appendices – Under separate cover

Appendix A – Phase 1 Report.

- Appendix B Phase 2 Report
- Appendix C Phase 3 Report
- Appendix D Summary of Public Comments, Community Consultation Meeting September 14, 2009
- Appendix E Infrastructure Staging Technical Memo

1. Introduction & Study Background

Purpose of the Study

1.1

The Federal government announced the closure of the former Canadian Forces Base Downsview in 1994 and their intention that the lands be held in perpetuity and trust as a unique urban recreational space. The Federal Government directed that the new National Urban park should be established and managed on a self-financing basis. The federal government therefore created ParcDownsview Park Inc. (PDPI), an agency with the mandate to manage the majority of the Downsview Area Secondary Plan lands. PDPI reports to the Parliament of Canada through the Minister of Transport, Infrastructure and Communities.

The Department of National Defence (DND) continues to retain some lands to accommodate ongoing military needs and to maintain an important presence in Toronto. In addition, Bombardier Aerospace owns and maintains jurisdiction of their manufacturing plant and associated airport runway and are considered a major employer in the City of Toronto. Other major landowning stakeholders are the City of Toronto (Build Toronto) who own lands around the Downsview subway station between Allen Road and Wilson Heights Boulevard. The Toronto Transit Commission (TTC) who own and operate the Downsview and Wilson subway and bus stations and the Wilson Railway Yards. The Canadian National Railway (CN) who own and operate the regional freight and passenger rail line in conjunction with GO Transit; Canada Lands who own the former Denison Armoury and Smart Centres Inc. who own and lease land to various big-box retailers, located in the southeast portion of the Secondary Plan area near Dufferin Street and Highway 401.

The current Downsview Area Secondary Plan was approved by City Council in 1999 (OPA 464) as an amendment to the former City of North York Official Plan. As part of the Downsview Area Secondary Plan, a Transportation Master Plan was prepared for the Downsview area. In 2001, the Plan was amended (OPA 504) to include the approval of a mix of uses for the lands at the southwest and southeast corners of Allen Road and Sheppard Avenue West.

The new City of Toronto Official Plan was approved by the Ontario Municipal Board in July 2006 and contains the Downsview Area Secondary Plan, Part 7 of Chapter 6 of the Official Plan, mostly in its original form. In addition to the new Official Plan's planning policies, goals and objectives, a new intermodal transit station between TTC and GO Transit is being planned in the Secondary Plan area where the CN rail intersects Sheppard Avenue West, as part of the proposed Spadina Subway Extension to York Region.

In June of 2008, ParcDownsiview Park Inc. developed a land use concept plan for the redevelopment of their lands within the context of many of the updated federal, provincial and municipal land use planning objectives. In light of these events and a renewed vision by ParcDownsview Park to redevelop their lands, the City of Toronto is undertaking a review of its current Downsview Area Secondary Plan policies and objectives, to consider the intensification of transit-supportive land-uses as a result of the major local and regional transit investment in the area. The Secondary plan review will include an update to the 1999 Transportation Master Plan for the Downsview area.

The Transportation Master Plan (TMP) has been undertaken to assess and identify, at a strategic level, the transportation infrastructure requirements that are necessary to support the growth and development within the Downsview Area Secondary Plan. The TMP represents an opportunity to integrate environmental considerations into transportation and land use planning by defining the long range transportation needs of the community in relation to land use planning.

1.2

Study Area

The Downsview Area Secondary Plan is located in the north central part of Toronto and is bounded by Highway 401 to the south, Keele Street to the west, W.R. Allen Road and Wilson Heights Boulevard to the east, and Sheppard Avenue West to the north. The lands within the Plan area total 537 hectares (1,320 acres). The larger Study Area, which contains the Secondary Plan lands, is bounded by Highway 401 to the south, Jane Street to the west, Bathurst Street to the east, and Finch Avenue West to the north. The boundaries of the Study Area and the Secondary Plan area are shown in Figure 1.



Figure 1. Downsview Area Secondary Plan Review Study Area

1.3

Policy Context

Several provincial and municipal policy documents are used to guide the land use, community design, transportation and infrastructure policies necessary to direct the physical development of a community. These policy documents have strong potential to influence future transportation demand in the Downsview Area Secondary Plan by shaping population and employment growth, stimulating economic and tourism growth and establishing a vision for the transportation system.

The *Phase 1 – Background Review and Existing Conditions* report, dated February 13, 2009, provides a complete discussion of relevant policy documents. The following is an overview of the key provincial and municipal policies, guidelines and studies that provide the framework for establishing the TMP goals, objectives and strategies:

The Ontario Provincial Policy Statement (PPS) provides policy direction on matters of provincial interest related to land use planning and development. The PPS provides for appropriate development while protecting resources of provincial interest, public health and safety, and the quality of the natural environment. The policies of the Provincial Policy Statement may be complemented by provincial plans or by locally-generated policies regarding matters of municipal interest. All planning decisions must be consistent with the PPS.

The PPS speaks to building strong, liveable and healthy communities through efficient land use and development patterns and promotes intensification and redevelopment within designated growth areas, to accommodate an appropriate range and mix of employment opportunities, housing and other land uses to meet current and a projected needs for a time horizon of up to 20 years. The PPS directs municipalities to provide safe, energy efficient transportation systems, making efficient use of existing infrastructure to facilitate the movement of people and goods. Land use and development patterns that promote use of public transport, and encourage active transportation are encouraged.

The Growth Plan for the Greater Golden Horseshoe (Growth Plan) came into effect on June 16, 2006. It provides a framework for implementing the Government of Ontario's vision for building stronger prosperous communities by better managing growth in the region to 2031. The Growth Plan provides directions on issues such as transportation, infrastructure planning, land-use planning, urban form, housing, natural heritage, and resource protection.

The Growth Plan provides policies for managing population and employment growth by building transit-supportive communities; reducing auto dependency through the development of mixed-use, transit-supportive, pedestrian friendly urban environments; and providing convenient access to intra- and inter-city transit. The Growth Plan also directs municipalities to develop and implement transportation demand management policies as a key strategy for dealing with growth. The Growth Plan also directs municipalities to manage and plan their transportation system to provide connectivity among different transportation modes for moving people and goods. Communities are encouraged to offer mode choices that will reduce auto-dependency and promote transit, cycling, and walking; promote sustainability by encouraging the most financially and environmentally appropriate mode of transportation; offer multi-modal access to jobs, housing, schools, cultural and recreational activities, and goods and services; and provide safety for system users.

The Growth Plan identifies policies relating to moving people, and identifies that public transit will be given first priority over other motorized forms of travel. Transit planning and investment decisions will be based on strategies that use transit infrastructure to shape growth. Municipalities are directed to plan for high densities to support existing and planned transit services and to expand their transit services into residential and employment areas and to improved linkages to urban growth centres, major transit station areas, and other intensification areas.

Municipalities are also required to ensure that pedestrians and cyclists are integrated into transportation planning by providing safe, comfortable travel for pedestrian and cyclists within existing communities and new development areas, and providing linkages between intensification areas, adjacent neighbourhoods, and transit stations.

The City of Toronto Official Plan (OP) was adopted by Council in 2001 and approved by the Ontario Municipal Board (OMB) in July 2006. The OP envisions that most of the new growth in the City of Toronto over the next 30 years will occur in land use designations covering 25% of the City's geographic area. The new growth is expected to occur in the Downtown, Avenues, Centres, and Employment District areas.

The OP provides a blueprint for how the City should grow in the next 20 to 30 years. It identifies where significant new jobs and housing will be encouraged and it encourages a more sustainable environment by promoting growth that is less reliant on the private automobile, directing development to areas with good transit service, improving transit in major growth areas, and emphasizing environmentally sustainable developments.

The OP also protects the physical character of Toronto's low-rise neighbourhoods, including design policies to guide the physical form of development and public realm improvements, other policies to protect heritage buildings and resources, and preserve natural areas and ravines. The OP emphasizes the importance of protecting the City's important employment districts and ensuring that the social and environmental infrastructure is in place to serve Toronto's present and future residents.

The OP provides a framework for structuring growth in the City based around a strong integrated transportation network that supports growth in a series of

Centres, which are linked by transportation infrastructure that facilitates mobility and fosters new growth along corridors identified as Avenues, which are intended as mixed use, high density corridors featuring enhanced transit services. A significant portion of the Downsview Area Secondary Plan is identified as an Employment District.

Portions of Keele Street, Sheppard Avenue and Wilson Avenue within the study area are identified in the OP as *Avenues*.

Source: City of Toronto Official Plan: Map 2, Urban Structure, August 2007

Figure 2 illustrates an excerpt of the Urban Structure Plan from the OP as it relates to the Downsview Area Secondary Plan.



Figure 2. Official Plan Map 2 – Urban Structure

The protection of neighbourhoods is also a key policy objective of the Official Plan, and a number of policies speak to the need to improve the functioning of the local road network in Neighbourhoods by maintaining roads and sidewalk in state of good repair, investing in improved transit service for residents, minimizing traffic infiltration, and discouraging parking on local streets for non-residential purposes.

These policy directions are approached with a view to specifying policy measures aimed at the public realm, and how it can be designed to support land use and transportation objectives of the Official Plan. For example, the OP encourages the design of streets in a way that provides safe, attractive, interesting, and comfortable spaces for pedestrians that balance the spatial needs of existing and future users, such as pedestrians, people with mobility aids, transit, bicycles, automobile, utilities, and landscape, within the right-of-way. The future rights-of-way for major roadways within the Downsview Area Secondary Plan, as identified in Schedules 1 and 2 of the Official Plan, will be reviewed as part of the Secondary Plan.

Connections for pedestrian and cyclists are just as important as connections for automobiles, and the OP encourages the protection of access to public accessible spaces and buildings by, among other things, creating a connected network of streets, parks and open spaces that are universally accessible on all City streets.

In new development areas, such as the Downsview Area Secondary Plan, the Official Plan guides the design of new city blocks and development lots within them such that their size and configuration are appropriate for the proposed land use; street-oriented development is promoted; adequate room for parking and servicing needs within the block is provided; and incremental phased development is allowed. The location and organization of vehicle parking, vehicular access, service areas and utilities should minimize their impact on the property and surrounding property and ensure that the safety and attractiveness of adjacent streets, parks and open spaces are improved.

High Order Transit Corridors, featuring transit services operating in exclusive rights-of-way, are also identified in the Official Plan and are planned for implementation as priorities are established, funding becomes available and the EA review processes are completed. Figure 3 shows the corridors within the Downsview Area Secondary Plan. Increasing transit priority throughout the City is also a key measure supported by the Official Plan and includes giving buses and streetcars priority at signalized intersections on other priority surface transit routes.



Source: City of Toronto Official Plan, 2000:



Source: City of Toronto Official Plan: Map 4 - Higher Order Transit Corridors, June 2006

In addition to the transit focus in the OP, transportation policies also emphasize travel demand management measures to reduce car dependency and rush-hour congestion. Planning for new development in targeted growth areas must consider reducing auto dependency and the transportation demands and impacts of the new development as it relates to the social and environmental objectives of the OP. In addition to new transportation infrastructure as outlined in the various schedules forming part of the OP, policies on parking and measures to support active transportation figure prominently.

Measures such as the use of minimum and maximum densities tied to parking requirements; redevelopment of surface commuter lots in City owned lands; limiting surface parking; initiatives to make better use of off-street parking; and the development, retention and replacement of commuter parking spaces for areas well serviced by transit are all policies encouraged in the OP. Active transportation policies in the Official Plan aim to create a safe, comfortable and friendly urban environment for both cyclists and pedestrian alike that is inclusive of the needs of people with disabilities and seniors. The Downsview Area Transportation Master Plan will build on the objectives and policies set out in the OP to achieve a more sustainable transportation network. The OP should be referred to for more detailed information on each policy.

Metrolinx Regional Transportation Plan - The Government of Ontario established the Greater Toronto Transportation Authority (GTTA) under the Greater Toronto Transportation Authority Act, in 2006, which became Metrolinx in December 2007. Metrolinx was given the mandate to develop and implement an integrated multi-modal transportation plan for the Greater Toronto and Hamilton Area (GTHA).

The Regional Transportation Plan (RTP) was released in September 2008. It contains 15 Strategic Directions and nearly 100 actions that are needed to achieve the future vision for the GTHA. Among these actions, eight are considered to be of particularly high priority. These Big Moves are expected to have the most impact in the on the GTHA transportation system. The eight Big Moves are:

- 1. A fast, frequent and expanded regional rapid transit network.
- 2. A complete walking and cycling network with bike-sharing programs.
- 3. An information system for travelers, where and when they need it.
- 4. A region-wide integrated transit fare system.
- 5. A system of connected mobility hubs.
- 6. Higher-order transit connectivity to the Pearson Airport district from all directions.
- 7. A comprehensive strategy for goods movement.
- 8. An Investment Strategy to provide stable and predictable funding.

All municipalities within the Greater Golden Horseshoe are encouraged to align their Transportation and Land Use policies and plans with the Regional transportation Plan released by Metrolinx.



Figure 4. 25-Year Plan for Regional Rapid Transit and Highway Improvements

Source: http://www.metrolinx.com/en/regionalTransportationPlan.aspx

In addition to these policy documents there are a number of other studies and initiatives that will influence transportation infrastructure decisions in the Downsview Area Secondary Plan.

Bus Only Lanes EA Study – Dufferin Avenue / Allen Road In 2004 the Toronto Transit Commission (TTC) and the City of Toronto completed a detailed Class EA study to improve the surface transit connection between Downsview Subway Station and Steeles Avenue, through York University, in advance of building a new subway link.

The primary objective was to improve the operation of the existing express bus service to York University and to accommodate York Region Transit and GO Transit plans to begin operating higher-quality, express bus service between Vaughan and Downsview Subway Station. The recommended plan includes Bus Only lanes on Dufferin Street and Allen Road from the existing Downsview Subway Station, to the Hydro Corridor north of Finch Avenue, where it crosses Keele Street and into the York University lands.





Environmental Assessment by York Region Environmental Assessment by TTC / City of Toron



Spadina Subway Extension EA Study

The City of Toronto and the TTC conducted an Individual EA study for a 6.2 km, 4-station underground extension of the Spadina Subway from Downsview Station to Steeles Avenue West, with related commuter facilities (bus terminals, passenger pick-up and drop-off and commuter parking).

The extension will include the Sheppard West Station which will be located west of the CN/ GO Transit rail line within the Parc Downsview Park lands and will include entrances at each end of the station platform and a possible underpass connecting to the east of the rail line.

Further work is to be conducted during the design of the Sheppard West Station to optimize long-term pedestrian and bus passenger access to the station and integration of the station with the new GO Transit station and with Parc Downsview Park.

Transit City – TTC Light Rail Transit Plan

Transit City is a Light Rail Transit plan proposed by the TTC and endorsed by the City of Toronto, and Metrolinx, the regional transportation agency. The following seven new Light Rail Transit (LRT) lines are being proposed as part of the plan.

- Don Mills LRT
- Eglinton Crosstown LRT
- Etobicoke- Finch West LRT
- Jane LRT
- Scarborough Malvern LRT
- Sheppard East
- Waterfront West

The TTC is currently undertaking Environmental Assessments for all seven proposed lines. All seven routes will connect with the existing TTC subway system, GO Rail lines, other Transit City routes, and planned rapid transit lines in Durham, York and Peel regions.

The Jane LRT line and the Etobicoke - Finch West will connect to the Spadina subway extension line.

Current Downsview Area Secondary Plan

The current Downsview Area Secondary Plan is included in Part 7 of Chapter 6 of the Official Plan. The Plan sets out a development framework for the Plan area. Figure 5 shows the different development areas and land use within the Plan area.



Figure 5. Downsview Area Secondary Plan Land Use Areas

Source: Official Plan, Chapter 6, Section 7:Downsview Area Secondary Plan – Map 7-1 Land Use Areas

The following are the major goals of the current Secondary Plan:

- create a major public park along Keele Street;
- develop a unique, high quality, built environment in a park-like setting;
- provide for a balanced mix of urban land uses at an overall level of development consistent with the capacity of the regional transportation network;
- establish appropriate built form and land use relationships between development within the Secondary Plan Area and adjacent lands;
- celebrate and commemorate the significant military and aviation history associated with these lands; and;

 foster economic growth, revitalize the Downsview community, generate opportunities for jobs, assessment and business development and provide spin-off opportunities for adjacent industrial and commercial areas.

Section 10 of the Plan covers the development policies for the different land uses shown in Figure 5. The land use areas include:

- Parks and Open Spaces
- Neighbourhoods
- Apartment Neighbourhoods
- Employment Area 'A'
- Employment Area 'B'
- Employment Area 'C'
- Institutional Areas
- Employment Area 'D'
- Employment Area 'E', and
- Mixed Use Area 'A' and 'B'

A full description of the currently approved land uses permitted in the existing Secondary Plan is covered in the Land Use report.

The Downsview Area Transportation Master Plan forms the basis of the transportation policies contained in the Secondary Plan. The current Secondary Plan specifies that streets and transit services within the Plan Area will be developed as extensions of the City's street and transit networks, and that the transportation system should provide a range of options that would encourage walking, cycling, and transit use while protecting adjacent communities from traffic infiltration.

Current Downsview Area Transportation Master Plan

In support of the current Secondary Plan, the City undertook a Downsview Area Transportation Master Plan to assess and identify, at a strategic level, the transportation infrastructure requirements that would be necessary to support the development levels proposed in the Secondary Plan.

The current Downsview Area Secondary Plan contains the policies developed in the 1998 Downsview Area Transportation Master Plan and Schedule 2 of the OP lists some of the required road infrastructure.

Section 11 of the Plan outlines the implementation strategies for the Plan including the transportation infrastructure, policies, and strategies summarized below.



- extension of Transit Road northerly to Chesswood Drive and southerly to Dufferin Street;
- grade-separated directional ramps between the W.R. Allen Road and the extension of Transit Road;
- internal collector roads connecting the northerly extension of Transit Road westerly to Sheppard Avenue and Keele Street;
- a road/rail grade separation across the existing CN rail line (Newmarket Subdivision) at the new east-west internal collector;
- a centre turn lane on Keele from Wilson Avenue to Finch Avenue;
- signalized intersections on the W.R. Allen Road to service Employment Area 'C' and Mixed Use Area;
- protection for future public rights-of-way connecting Sheppard Avenue to the northerly Transit Road extension at Yukon Lane and generally in the vicinity of Kodiak Crescent; and
- a direct grade-separated pedestrian connection from the Downsview Subway Station to development at the southwest corner of Sheppard Avenue and W.R. Allen Road.

The current Downsview TMP also includes recommended Travel Demand Management Strategies, particularly for the employment areas identified in the Plan. An extensive monitoring program was recommended to track progress in achieving the TDM targets and to ensure that the infrastructure plan was addressing the needs of current residents and new development areas as well. The recommended monitoring program included:

- traffic volumes on major roads and key intersections;
- travel characteristics of employees, residents, and visitors;
 - evaluation of traffic volumes and transit ridership in the context of availability capacity;
- parking availability, location and pricing policies;
- evaluation of existing, planned, and proposed development;
- traffic infiltration; and

•

 results of Transportation Demand Management measures and the extent to which the objectives set out in the Transportation Master Plan are being achieved.

In completing the update to the Downsview TMP, the approved infrastructure and policy recommendations from the 1998 Downsview Area Transportation Master Plan will form the 'Do Nothing alternative that forms the basis of the review and update being undertaken in this project.



1.4

Municipal Class EA Process

The TMP is being conducted in accordance with Phases 1 and 2 of the Municipal Engineers Association's (MEA) Municipal Class Environmental Assessment (Class EA) document, dated October 2000, as amended in 2007. The EA process is shown in which is an approved process under the provincially legislated Environmental Assessment Act.

Phase 1 of the Class EA:

- Identifies and describes the problem or opportunity of the Downsview Area Secondary Plan; and
- Commences the public consultation process.

Phase 2 of the Class EA will include the following steps:

- Identify the alternative solutions to the problem; all reasonable and feasible alternatives will be identified and described;
- Prepare a physical description of the Plan area and a general description of the natural, social and economic environments;
- Evaluate all reasonable alternative solutions identified previously;
- Consult with the review agencies and the public to solicit comment and input; and
- Select a preferred solution.

Phases 3, 4, and 5, as shown in Figure 6, will need to be completed as part of separate project initiatives prior to implementing specific infrastructure elements recommended in the Master Plan.

Figure 6. Municipal Class EA Process



1.5

	Study Area		
Mode	AM	PM	
mode	(6:00 –	(15:00 –	
	9:00)	18:00)	
Auto	76%	71%	
Transit	15%	20%	
Walk/Cycle/Other	9%	9%	
Total	100%	100%	

Source: 2006 Transportation Tomorrow Survey

Summary of Phase 1 Report – Background Review and Existing Conditions

In addition to the detail overview of the background policy context, summarized above, the Phase 1 Report provides an extensive overview of existing conditions in the study area for the Downsview Area Secondary Plan. The summary includes an overview of the road, transit, cycling, and pedestrian networks in the area, along with traffic and transit ridership data on major portions of the network.

Within the broader study area between 71 and 76% of peak period trips are made by the automobile, either as a driver or passenger. Transit use is relatively high at 15% in the AM peak period and 20% during the PM peak period. Walking and cycling account for close to 9% of peak period trips. Total non-auto trips represent between 24 and 29% of peak period travel in the broader study area. Within the lands covered by the Downsview Area Secondary Plan, there is a higher reliance on automobile traffic today, although it is important to note that the Plan area only represents about 4% of total AM and PM peak period trips in the study area since much of it is undeveloped.

The majority of auto trips originating in the study area tend to be destined to areas adjacent to the study area. For example, in the AM peak period 28% of these trips either stay within the study area or are destined to areas just west of the study area and 15% are destined to areas just east of the study area. Similarly, inbound trips generally originate from areas surrounding the study area, although trips from York Region represent 20% of the total inbound trips. A similar pattern of trip making is observed in the PM peak period.

For transit trips there are two primary destination areas, which are highly influenced by the existing subway stations located in the Downsview Area Secondary Plan area. Downtown Toronto attracts approximately 32% of the AM Peak Period transit trips and areas within or just west of the study area attract about 22%. The remaining trips are distributed to other adjacent areas.

There are two existing subway stations located within the Secondary Plan area, Downsview station in the east portion of the Plan area and Wilson station at the south. With the extension of the Spadina subway, a third subway station, known as Sheppard West Station, will be located at the north end of the Secondary Plan area near Sheppard Avenue West and the CN rail line. This will result in a substantial portion of the lands in the Secondary Plan area being within short walking distance of a higher order of transit service. The proposed subway station will be designed to accommodate a future inter-connection with GO Transit service on the CN rail line.

During the AM Peak hour, the key major intersections at Keele Street / Sheppard Avenue, Sheppard Avenue / Allen Road, and Keele Street / Wilson Avenue are all operating at or over capacity. Many of the other major intersections, such as Keele St / Finch Ave, Dufferin Street / Finch Avenue, Transit Road / Allen Road, and many of the minor intersections along Wilson Avenue and Keele Street are operating at LOS C-D conditions.

During the PM Peak hour, most of the major intersections, particularly those at the major entry points to the study area, operate at or over capacity with additional capacity concerns noted at Sheppard Avenue / Chesswood Drive, Sheppard Avenue / Tuscan Gate, and Sheppard Avenue / Wilson Heights Boulevard.

One on the primary causes of the intersection capacity issues in the study area is due to the lack of a grid network of east-west and north-south roads through the study area. This lack of fine grain road network forces traffic out to the major arterial road network and results in significant turning volumes at the major intersections, which results in many left turn movements operating over capacity. In addition to motorist delays, congestion at major intersections can also lead to short cutting activity through certain neighbourhoods in the Secondary Plan area.

Residents within the broader study area have expressed a number of concerns related to the transportation system in and around the Downsview Area Secondary Plan study area. In addition general concerns about the level of traffic and congestion on study area roads during peak periods, additional concerns have been noted with respect to the lack of quality pedestrian and cycling infrastructure, particularly leading to and from the ParcDownsview Park activity areas.

Additional specific neighbourhood concerns also include:

- Residents along/in the area of Wilson Heights Boulevard have expressed their concerns regarding traffic infiltration, the potential for increased traffic volumes and on-street parking activities associated with development of the Downsview lands.
- Residents along/in the area of Grandravine Drive have expressed concern with potential for increases in traffic infiltration if a new roadway from the Downsview lands is connected to intersect with Grandravine Drive.

Based on the above summary of existing transportation conditions in the study area these are a number of constraints that need to be considered in the development of an updated Secondary Plan and Transportation Master Plan for the Downsview Area. These constraints include:

- Capacity constraints at major intersections, such as:
 - Wilson Avenue and Keele Street
 - Wilson Avenue and Transit Road/ Transit Rd./ Billy Bishop Way
 - Sheppard Avenue West and Keele Street

During peak periods many of the major intersections in the study area are operating at or over capacity.

- Sheppard Avenue West and W.R. Allen Road
- Limited transit service into the Plan Area
- Limited bike routes within the Plan Area
- Lack of a pedestrian friendly environment within the Plan area
- Difficulty to establish east-west connections within the Plan area, due to the presence of the CN rail line that runs north-south within the Plan area.
- Difficultly to establish north-south connection within the Plan area, due to the presence of the Bombardier facility and operational runways supporting this key industry.

As a result of the network connectivity constraints in the area, there is not a well defined grid network of local roads to accommodate new development and disperse new auto traffic generated by development. This tends to result in very high turning volumes at many of the key intersections in the study area.

Without the introduction of new road connections through the Downsview Plan Area, the major boundary arterial road network, which is already operating at or near capacity during peak periods, will experience additional capacity issues. The lack of local grid network also presents challenges in terms of serving new development areas with surface transit.

In accordance with the Municipal Class Environmental Assessment Process, a Problem and Opportunity Statement for the new Downsview Area Transportation Master Plan was developed as part of the *Phase 1 Background Review and Existing Conditions Report*, dated February 13, 2009. The Statement is re-iterated below to provide a context for the Recommended Transportation Network presented in this report.

Problem and Opportunity Statement

The Spadina Subway Extension, a new TTC subway station and GO Transit station, along with a renewed development vision proposed by ParcDownsview Park Inc., have created an opportunity to reconsider the approved Transportation Master Plan. In support of an updated Downsview Area Secondary Plan, the Transportation Master Plan will continue to respond to investment in transit and the incorporation of infrastructure and policies that are more transit-supportive.

There is a lack of road network connectivity through the Secondary Plan due to the physical constraints posed by the CN railway line, Bombardier runway and Wilson railway yard. As a result, the existing area road network and surface transit routes are operating close to their capacity.

All of these elements identify that there is a basic need and opportunity to develop sustainable transportation infrastructure to serve the long term development aspirations of the Downsview Area Secondary Plan. The reader is encouraged to review the entire Phase 1 Report, contained in Appendix A, for more detailed information on the existing conditions in the Study Area.

1.6 Summary of Phase 2 Report – Identification, Assessment & Evaluation of Alternatives

The *Phase 2 Identification, Assessment and Evaluation of Alternatives Report* was the second of three interim reports that form the basis for a new Downsview Area TMP. This phase of work determined and explored the advantages and disadvantages of various transportation network alternatives (road, transit, cycle and pedestrian) and their relationship to potential intensification of land uses within the Downsview Area Secondary Plan. The report focused on the following topics:

- Development of road and transit network alternatives;
- Travel Demand Forecasting based on five land use development options;
- Testing of the transportation network alternatives, including technical traffic (Paramics) micro-simulation analysis and results;
- Evaluation of the transportation network alternatives against environmental assessment and planning principles; and
- Identification of key transportation infrastructure components that inform the creation of an Emerging Preferred Transportation and Land Use Plan.

In addition to the currently approved Secondary Plan Land Use, four alternative land use options were developed for the Secondary Plan area, incorporating various approaches to achieve the land use intensification objectives using an appropriate range, type and level of development that could be transit supportive. The land use scenarios included:

٠	The existing approved Downsview Area Secondary Plan (full
	build-out);

- Land Use Option 1 that incorporates ParcDownsview Park Inc.'s (PDPI) renewed vision; and
- Options 2, 3 and 4, which were created on the basis of placing varying land uses with associated higher densities within a reasonable walking distance and accessibility to transit.

The Bombardier, TTC, DND and Wilson Districts were considered fixed in terms of location and size based on current use and operations, and the expectation of limited change relative to the other development Districts within the Secondary Plan area in the foreseeable future. The rationale for the development of each of these land use options is further detailed in the *Phase 2 Land Use and Urban Design Summary Memorandum*.

Land Use Option	Population	Employment	Total
Existing Secondary Plan (Full Build-Out)	17,206	21,263	38,469
Land Use Option 1	33,121	21,835	54,956
Land Use Option 2	26,733	24,169	50,902
Land Use Option 3	24,751	29,987	54,738
Land Use Option 4	30,627	27,844	58,471

Because the Existing Downsview Area Secondary Plan land use option yields the lowest total development potential, it was used as the starting point and served as the basis for testing the various network alternatives. This methodology would assist in clearly identifying the opportunities of the various transportation infrastructure components and the potential development limit.

A key factor in assessing the amount and type of infrastructure required to support potential growth is the assessment of future travel demands that are created by both new and existing development within the Plan area and its surroundings. This is referred to as "travel demand forecasting". Although travel demand forecasting is an important consideration in determining a preferred long range transportation plan; public input, environmental, social and economic and City planning policy criteria also play a major role in deciding the amount and type of infrastructure that is required to support growth. When combined, these assessments assist in identifying the key transportation components of each of the four road options; and inform the basis upon which an emerging preferred transportation network will be built upon.

The approach to travel demand forecasting used for this study recognizes the importance of understanding the role that all modes of travel (i.e. auto, transit, cycling, and walking) can play in accommodating future growth. In order to assess the need for infrastructure to accommodate each mode of travel, forecasts of future travel demands were developed for both auto and non-auto trips, anticipated to be generated by the various Secondary Plan land use scenarios.

This assessment also considered the role that recently announced transit improvements, such as the extension of the Spadina Subway and the Transit City Light Rail Transit plan will have on future demands in the broader study area. It is assumed that these planned transportation infrastructure elements will be in place by 2031 regardless of the level of development planned for the Downsview Area Secondary Plan.

The forecasts of the future share of trips that will be made by non-auto modes represent a significant increase from today, although it is important to remember that there is also a significant investment in transit infrastructure planned for the Study Area to assist in encouraging these shifts. The auto shares used in the assessment for the Secondary Plan Area are similar to mode share patterns currently experienced in other major development areas in the City with similar densities and levels of subway and surface transit infrastructure.

It is recognized, however, that auto trips will continue to play a major role in meeting the mobility needs of the community in the future. Therefore, to assist in the public's understanding of the Plan's development impacts and to provide documentation of the City's recommended approach, a detailed

By 2031, it is estimated that between 30% and 50% of trips within the Downsview Area Secondary Plan will be made by non-auto modes of travel, including public transit, walking and cycling.

analysis of the existing and future 2031 road network operations was conducted as part of the assessment.

Forecasts of "background" travel volumes for the Study Area road network account for planned growth within the entire City of Toronto and surrounding regions, combined with planned transportation infrastructure improvements, including the planned Spadina Subway Extension to the Vaughan Corporate Centre; the Busway to York University; and the proposed rapid transit improvements contained in the TTC Transit City plan.

An overall growth of approximately 10 to 15% in the background traffic demands within the broader study area for the 2031 horizon year was observed. This level of growth is not surprising recognizing that most of the surrounding area is already built up, and subsequent growth will only come about from intensification or traffic associated with development beyond the study area, such as the York University lands and the Vaughan Corporate Centre.

Of the noted background developments, the Ontario Realty Corporation (ORC) is proposing to re-develop the Downsview Provincial Campus, located at the south west corner of the Keele Street and Wilson Avenue intersection. The associated employment growth of the ORC Provincial Campus is acknowledged in the transportation review of the Downsview Area Secondary Plan because it is a potential major employment node¹.

Outputs from the City's regional transportation model were combined with detailed estimates of the trips expected to be generated by current and new development in the Secondary Plan area to forecast the future total traffic demand upon full build-out, estimated to occur by 2031. A detailed micro-simulation model was created for the Study Area using the Paramics software to simulate the vehicular operation of the Study Area's road network alternatives.

Despite the focus on automobiles, transit and non-auto infrastructure are also very important elements to support growth; and it was recognized that the assessment of transit and pedestrian cycling network alternatives will, in a large part, be informed by the road network alternatives and the arising development blocks. Thus, the initial step in the network development and assessment process was focussed on the identification and assessment of the various road network alternatives. The following road network alternatives were considered in the context of the development of the Transportation Master Plan for the Downsview Area Secondary Plan.

The planned extension of the Spadina Subway provides a significant benefit in terms of managing the growth in background auto traffic on the Study Area road network.

¹ The traffic impacts on localized intersections such as Keele Street and Wilson Avenue



downsview area existing transportation master plan

TMP Road Option – This road network alternative is the approved road structure plan based on the 1999 Downsview Area Transportation Master Plan. It includes the following:

- a northerly extension of Transit Road to Chesswood Drive with road links to the Allen Sheppard district and north of Sheppard Avenue employment lands;
- grade separated on- and off-ramps from Allen Road to the Transit Road extension;
- a central east-west Secondary Plan road connection in the vicinity of Carl Hall Drive and Keele Street/Whitburn Crescent;
- a below grade road/ CN rail separation, at the north end of the Plan area
- an east-west road, at the north end of the Plan area, connecting Chesswood Drive to Sheppard/Tuscan Gate and continuing westerly to Keele Street.



option 1

Road Option 1 – This road network alternative is based on ParcDownsview Park Inc's vision. It consists of the following:

- an east-west grade separated connection located at the north end of the Plan area, connecting Chesswood Drive to Keele Street;
- a north-south road located west of the CN rail line and extending from the Sheppard district through the national park and connecting to Keele Street near the Stanley Greene district;
- an internally focussed road network within the William Baker, Sheppard and national park Districts; and
- a partial northern extension of Transit Road that links to the Allen Sheppard district.



option 2

Road Option 2 – The network consists of the following:

- a north-south connection through the Plan area west of the CN rail line, connecting to Keele Street and to Wilson Avenue near Mount Sinai Cemetery;
- an extension of Dufferin Street to the Chesswood District. The extension runs parallel to the west of Bombardier's runway;
- an extension of Transit Road to Sheppard Avenue, just west of the Allen and Sheppard intersection; and
- an east-west grade separated connection located at the north end of the Plan area, connecting Chesswood Drive to Keele Street.

23



option 3

Road Option 3 - consists of:

- an extension of Transit Road to Sheppard Avenue, just west of the Allen and Sheppard intersection;
- an east-west grade separated connection located at the north end of the Plan area, connecting Chesswood Drive to Keele Street;
- a north-south road, west of the CN rail line, extending from the Chesswood district, through the national park and connecting to Keele Street in the vicinity of the Stanley Greene district; and
- a north-south road, east of the CN rail line, extending from the Chesswood district to Wilson Avenue.

Benefits of the approved TMP Road Network

The TMP Road network provided the best overall level of network efficiency and accommodated the largest percentage of future growth of all of the road network options. The same was true for the results of the assessment of Average Network Speeds, which showed better performance for the TMP Road network compared to Road Options 1, 2 and 3.

The Paramics results indicate that the three key road connections in the TMP network play an important role in facilitating improved flows to and from the Study Area, and minimizing congestion that could have adverse affects on the Highway 401 / Allen Road interchange.

The Transit Road Extension Grade Separate Ramps

The analysis showed that direct grade separated ramps connecting Allen Road to Transit Road could enhance traffic operations in the Study area. The ramps provide direct access to the development Districts thereby reducing the traffic demand at the Allen Road and Sheppard Avenue intersection, especially for the northbound left turn movement. Without the ramps or improved connectivity between Allen Road and the Transit Road Extension, the intersection level of service would be significantly worse during the AM and PM peak periods causing extensive queuing on northbound Allen Road.

The Need for Better Network Connectivity

The assessment of road network options also demonstrated the importance of providing well defined connections between the Plan Area and Keele Street as a means to improve the Keele Street and Sheppard Avenue intersection. The TMP Road network includes a connection that provides access to Keele Street from the National Park and the Stanley Greene

The Transit Road Extension to Chesswood Drive; the direct ramps from Allen Road to Transit Road; and the east-west roadway between the Transit Road Extension and Keele Street are key road connections that support growth in the Secondary Plan Area. The N-S connection to Wilson Avenue in Road Option 2 also provides capacity relief to the Keele Street / Wilson Avenue intersection. District; however the road connection does not link Keele Street to the Sheppard District. The other three Road Options improved on this to various degrees and the simulation modelling showed that a road connection between Keele Street and Sheppard Avenue through the William Baker District, combined with a road connection to Keele Street from the National Park and Stanley Greene District would provide the best improvements to the operation of the Keele Street / Sheppard Avenue intersection.

Although Road Option 3 has two north south links on each side of the railway tracks, the benefits of the two links were not apparent. The Phase 2 assessment concluded that a single north south link would be sufficient to accommodate the north south demands into the Secondary Plan area and found that the connection in Road Option 2 performed the best.

When coupled with the possible long term extension of Dufferin Street to Chesswood Drive, the operational performance is expected to provide a better network connection between Wilson Avenue and Sheppard Avenue and provide relief at the Dufferin Street/Wilson Avenue intersection.

The review noted that additional refinements to the alignment of the northsouth linkage could be considered to provide alternative access to the Bombardier lands as part of the development of the preferred road network plan.

A Combined Road Network Solution

None of the individual road network options as tested provided sufficient network road capacity within the Study Area. Peak period road congestion is somewhat expected for an urbanized area with high land use densities, however the lack of a fine-grain road structure in each of the four road network options results in poor levels of service at many of the major intersections in the Study Area.

The Phase 2 network assessment identified four key TMP Road option infrastructure elements, which should form the basis of the road structure. In addition to this basic road structure, further road network enhancements are required to improve connectivity and provide for additional network capacity to better address the expected demands and travel patterns that will occur as a result of the anticipated planned growth in the Secondary Plan.

Potential Opportunity for Long Term Road Network Components

The Phase 2 work found that one of the benefits of the Dufferin Street Extension is the reduced demand for left turn movements at the Dufferin Street/Wilson Avenue intersection, which contributes to an improvement to the overall intersection operations. While there are clear network benefits associated with the Dufferin Street Extension, it was recognized that implementation would be a long term objective given the physical constraints
due to the existing operation of the Bombardier runway and the financial cost to provide a connection while maintaining normal runaway operations.

<u>Need for an Integrated Surface Transit System to Support the</u> <u>Secondary Plan Area</u>

In terms of creating a more sustainable transportation system to support the Downsview Area Secondary Plan, the Phase 2 assessment concluded that it is also important to create an effective internal transit network that will improve the level of accessibility and level of service provided to areas not currently well served by transit. This will be a major factor in achieving the transit mode split targets that have been proposed for new development areas within the Downsview Area Secondary Plan.

The new Sheppard West Subway and GO Transit Stations, located within the Downsview Area Secondary Plan, create another important connection point to the local and regional train systems. The Phase 2 work recommended that these new stations should serve as a focal point for the integration of surface transit services for the existing Bombardier and DND facilities, including the Stanley Greene, National Park, William Baker, Sheppard and Chesswood Districts. Development in the Allen and Wilson Districts will continue to focus on access to the subway via the existing Downsview and Wilson Subway Stations respectively.

Evaluation of Alternatives

The Phase 2 transportation review and interim report coincides with Phase 2 of the Municipal Class Environmental Assessment (EA) process, which consist of determining and evaluating different transportation alternatives that will ultimately support the proposed land use option for the Downsview Area Secondary Plan.

During Phase 2 of the Class EA process, alternative solutions are typically developed and assessed to determine how well they address the identified the Problem/ Opportunity Statement, and to what degree these solutions affect the environment in the Study Area.

Before a preferred transportation infrastructure network can be determined or developed, each of the alternative transportation network options are identified and evaluated against a list of evaluation criteria incorporating both qualitative and quantitative factors. These criteria were developed based on the key objectives and principles of the Environmental Assessment Act, the Problem and Opportunity Statement, and the City of Toronto Official Plan.

The Evaluation Criteria were grouped under the following five sub-categories:

 Transportation – considering the technical suitability and traffic operations of the four network options. Specific criteria include the ability to accommodate growth, along with road, pedestrian / cycling, and transit network design considerations;

- Planning and Policy Context considering the plans and policies identified in provincial plans (i.e. Provincial Policy Statement and the Provincial Growth Plan) and the City of Toronto Official Plan;
- Socio-Economic Environment considering potential for affects to residents, property owners, institutional/recreational facilities, neighbourhoods, and community services;
- **Natural Environment** considering potential for affects to the natural and physical components of the environment; and
- **Cultural Environment** considering potential for affects to archaeological remains, and/or built heritage and cultural landscape features in the Study Area.

The evaluation concluded that while each of the four road options considered had some unique infrastructure components, there are opportunities to enhance each of them. Without further improvements, most major intersections and roadway sections will operate with much higher levels of congestion compared to existing conditions.

The Phase 2 work concluded that an improved network capable of providing additional capacity, route choices and better network flow patterns would address many of the identified capacity deficiencies and may also provide significant benefits in terms of accommodating additional growth beyond the levels in the current Secondary Plan.



Figure 7. Phase 2-Emerging Preferred Road & Transit Network

Based on the evaluation and analysis contained in the Phase 2 report the various opportunities identified by combining the various Road Network Options were illustrated in an Emerging Preferred Road & Transit Network, illustrated in Figure 7. This network includes:

4 Key Infrastructure Elements

- 1. Improved connectivity between Allen Road and Transit Road by means of directional ramps or improved surface road network;
- 2. The Transit Road extension to Chesswood Drive;
- 3. Improved connectivity between Sheppard Avenue and Keele Street through the William Baker District and between Keele Street and the Sheppard District by means of an east-west road linking to the Transit Road Extension; and
- 4. A north-south connection through the Build Toronto lands to provide better accessibility from Allen Road and better operational capacity at the Allen Road and Sheppard Avenue West intersection;

Future Potential Infrastructure Elements

- The extension of Dufferin Street through to Transit Road / Chesswood Drive to improve access to the Bombardier lands and provide additional north-south route choice availability through the Plan area;
- 2. North-south road through the Stanley Greene District to Wilson Avenue, which improves the operational capacity along Keele Street, especially at the Keele Street and Wilson Avenue intersection; and
- 3. Additional connections through the William Baker District to improve connectivity and route choice options.

The Phase 2 report also recommended that the Emerging Preferred Network should also be used as the backbone for an integrated pedestrian and cycling network through the Study Area incorporating sidewalks, bike lanes, multi-use paths, and other off road routes into and through the National Park and the various development districts in the Secondary Plan Area.

Finally, the Phase 2 report noted that opportunities to provide a better balance between the number of residents and the number of jobs within the Secondary Plan area should be explored as part of the development of an Emerging Preferred Land Use Scenario. This would provide additional opportunity to encourage more live-work within the area, shorten average trip lengths, and reduce external travel demands on the arterial road network.

1.7 Summary of Phase 3 Report – Identification of Preferred Alternative

This Phase 3 Identification of Preferred Alternative Report was the third of three interim reports that formed the basis for a new Downsview Area TMP. Phase 3 built upon the findings summarized in the Phase 2 Identification, Assessment and Evaluation of Alternatives Report and focused on the development of the Draft Recommended Transportation Network, including:

- Recommending an appropriate level of development within the updated Secondary Plan area that is transit supportive;
- Identifying the draft recommended road, transit, pedestrian and cycling network opportunities;
- Identifying the associated costs for the draft recommended transportation improvements; and
- Identifying the future Environmental Assessment requirements.

The analysis and testing of the Emerging Preferred Network in Phase 3 involved taking a closer look at the location of land use types, revisiting development densities and density assumptions, and testing built form options. This analysis was done in consultation with the land use and servicing analysis. Because the development of a Recommended Plan is an iterative process, the residential and employment populations generated from the Emerging Preferred Plan were used to test and refine potential transportation, servicing and stormwater network configurations for the area.

The results of the transportation, servicing and stormwater analysis were then fed back into the land use analysis. This cycle of testing continued throughout Phase 3 until an ideal balance was achieved, based on the goals and objectives of the study.

Overall, the draft Recommended Land Use presented in the Phase 3 Report proposed a total population and employment of approximately 41,600 people, which is 8% higher than for the Existing Secondary Plan Land Use. This is broken down into approximately 9,800 residential units, which is 18%

The Transit improvements in the Downsview Secondary Plan Area along with the recommended road network improvements can accommodate additional development beyond what is permitted in the Existing Secondary Plan. higher than permitted in the Existing Secondary Plan, and provides for 1.5 million square meters of gross employment floor area. The split between total population and employment is 47% and 53%, respectively, which is slightly different from the Existing Secondary Plan (45%, 55%).

The land use adjustments reflected in the draft Recommended Land Use Plan allows for the higher growth with similar operational performance as the approved Secondary Land Use Plan. A detailed summary of the draft Recommended Land Use Plan can be found in the Phase 3 Summary Memorandum.

The Recommended Land Use Plan, presented in the Phase 3 Report, is supported by an extensive Pedestrian and Cycling infrastructure plan for the Downsview Area Secondary Plan area which integrates the new development districts into the National Urban Park and is designed to support a high level of non auto trip making in the study area. A Transit Network Plan, including a new "circulator" transit service linking all of the development districts with the new Sheppard West Subway Station and Wilson Avenue, will provide enhanced transit service for new residents and visitors alike.

Sensitivity analysis undertaken on the Emerging Preferred Road Network, confirmed that the Transit Road Extension and the EW Road from the Transit Road Extension to Keele Street are both important elements of the road network that will be required to support development growth in the Secondary Plan area. The potential future North South Link to Wilson Avenue and the potential future Dufferin Street Extension are both important road links to protect for in the longer term and should be included as future transportation corridors in the Secondary Plan.

As part of the Secondary Plan Review, the City has expressed a desire to examine opportunities to enhance the character of Allen Road. The City envisions that the Allen district could be transformed to provide an urban streetscape and character reflective of a typical arterial road rather than a highway environment that emphasizes high capacity and high speeds. As a result, a series of alternatives were considered that include reconfiguring the Wilson Heights Boulevard ramps as well as eliminating the direct ramps between Allen Road and Transit Road Extension that were included in the existing approved TMP. Three of the alternative concepts were presented to the public at the Phase 3 open house and community meeting for comment prior to selecting a preferred concept for inclusion in the Recommended Transportation Master Plan.

A full description of the phase 3 work, including the scenarios tested and recommendations can be founding the Phase 3 – Identification of Preferred Alternative Report, included in Appendix C.

The simulation modelling results show that with the draft Recommended Land Use Plan, operations on most arterial sections will range from 'C' to 'E' with speeds above 24 km/h.

1.8 Summary of Consultation During Study

Throughout the Secondary Plan process, an extensive public engagement process has been employed to solicit ideas regarding the land use and transportation infrastructure needs in the Downsview Area Secondary Plan, share information on the progress of work, and to solicit feedback on the transportation and land use alternatives and draft Recommended Plan.

Public consultation events that were held throughout the planning process include:

- Community Consultation Meeting September 17, 2008
- Community Consultation Meeting October 7, 2008
- Drop-In Meeting: Update on Analysis of Options November 1 and 2, 2008
- Open House Meeting December 8, 2008: Directions for a Preferred Alternative
- Community Consultation Meeting September 14, 2009

Copies of all public consultation notices for upcoming meetings, public display material, draft reports prepared throughout the study, and a summary of comments received were posted on the City website(<u>http://www.toronto.ca/planning/downsview.htm</u>)

In addition to formal public consultation events, meetings with landowners in the study area were held throughout the process along with meetings with the Community Reference Group, a small group of residents, businesses and local agencies that was established to provide feedback to City staff during the review.

Following the September 14th, 2009 Community Meeting, in which the draft Recommended Land Use and Transportation Plans were presented to the public for comment, 5 sets of comments were received by the City, and are provided in Appendix D for reference purposes.

In general, the overall concerns raised in comments received related to the amount of density proposed for the area and the ability of the existing and planned infrastructure to support the density. Several comments related to the strain on existing transportation, water and sewage infrastructure that additional development will create.

It was also felt that new infrastructure should be built in advance of development in the five proposed districts to ensure that capacity is there to service the density. Other comments related to specific improvements to existing infrastructure that should be considered moving forward.

To extent possible and within the context of the transportation comments received, the Recommended Plan has incorporated a variety of infrastructure recommendations and policies to address the comments received during the study.

2.

Recommended Transportation Plan

The Recommended Transportation Plan for the Downsview Area Secondary Plan is based upon and designed to accommodate a total of 9,800 new residential units and 1.57 million square metres of non-residential floor space. This translates into an estimated 19,600 new residents and 22,000 new jobs in the Secondary Plan Area as summarized in Table 1, below.

	Recommended Plan						
Districts	# units	Non- Residential GFA (m ²)	Population	Employment	Total		
Stanley Greene	1,356	-	2,630	-	2,630		
William Baker	3,534	11,638	6,714	312	7,026		
Sheppard	1,024	286,839	1,945	3,279	5,224		
Chesswood	-	96,351	0	1,204	1,204		
Allen							
East Side	2,531	155,436	5,634	3,462	9,096		
West Side	1,396	89,289	2,652	6,027	8,679		
Wilson	-	208,285	-	1,000	1,000		
Bombardier & DND & TTC	-	578,232	-	5,896	5,896		
National Urban Park	-	147,930	-	849	849		
Total	9,841	1,574,000	19,575	22,029	41,604		

Table 1 Recommended Land Use Plan

Further details on the recommended Land Use Plan can be found in the Land Use Summary Report.

The following sections summarize the key elements of the Transportation Master Plan for the Downsview Secondary Plan Area. The Recommended Plan is design to support the recommended level of development, and incorporates the results of the previous technical work undertaken in phases 1-3 of the study, and comments received from the public at the final Community Consultation Meeting on September 14, 2009. 2.1

Transit Network Plan

The Recommended Transit Network, illustrated in Figure 8 will create an effective internal transit network that will improve the level of accessibility and level of service provided to areas within the Secondary Plan. This is a critical factor in achieving the transit mode share targets that have been proposed for new development areas within the Downsview Area Secondary Plan. Transit service is expected to consist of buses running in mixed-traffic, either as a private service or as part of regular TTC services. Opportunities to protect for higher order transit service on some of these routes in the longer term should be considered.





The recommended transit network, in addition to existing TTC services and planned road improvements, could consist of two transit circulator routes that provide service on either side of the Bombardier runway. On the west side, the proposed route runs along Keele Street; along Sheppard Avenue to service William Baker district; along the new north-south connection road to service the Stanley Greene district and provides efficient access to Wilson Avenue; crosses the rail line to service the existing Bombardier facility; and then proceeds north to the Chesswood district to access the Sheppard West Subway Station.

On the east side, the route runs along the Transit Road Extension; crosses Allen Road to provide service to the Allen district, and runs along to the North South link though the Build Toronto Lands connecting the Allen district to the Downsview Subway Station, and finally onto Sheppard Avenue to the Chesswood district.

In the longer term, there is potential that portions of this route could serve as important links to form part of a future east-west connection to the Jane Street LRT, proposed in the TTC Transit City Plan. The proposed route structure allows for two options for this to occur. One longer term route concept would utilize the north-south portion along Keele Street, combined with a high order route along Wilson Avenue to connect to Jane Street. The second alternative, would utilize the north-south route through the Plan and the connection to Wilson Avenue through the Stanley Greene district to provide a link to a high order service along Wilson Avenue.

While the final determination of a preferred route for this type of service is beyond the scope of the Downsview Area Secondary Plan and also requires further discussions between the City and the TTC, the recommended rightof-way width for the north-south perimeter road through the Plan has been set to permit additional widening of the pavement surface to allow for this type of higher order transit service in the future, if warranted.

In the event that the connection to Wilson Avenue through the Stanley Greene district is not feasible, an alternative connection to Keele Street has been shown at the south end of the National Urban Park. This connection may also be considered for an early implementation prior to securing the necessary approvals and lands required to build the proposed north-south connection road to Wilson Avenue.

Decisions regarding the implementation of the Recommended Transit Network are subject to further review by City and TTC staff and approval of the TTC Commission and City Council.

The circulator concept would also provide excellent two-way service around the perimeter of the National Urban Park, improving the ability to accommodate demands that may be associated with special events held in the park grounds.

2.2 Pedestrian & Cycling Network Plan

The purpose of the Pedestrian and Cycling Plan is to provide a pedestrian and cyclist-friendly environment that is safe, convenient, and attractive to both pedestrian and cyclists. The development of the Recommended Transportation Plan has been prepared to integrate with the detailed land use and transportation network improvements that have been developed during this Review, and have been designed to provide a well integrated network of pedestrian and cycling infrastructure within the Downsview Area Secondary Plan.

The proposed Pedestrian and Cycling Plans emphasize the following principles:

- The pedestrian and bicycle network should be established to achieve pleasant, convenient, safe access to and between all major land uses, transit stations, parking areas, public streets, and areas surrounding the Plan area.
- 2. The pedestrian and bicycle network should be designed to provide a coherent and continuous network will serve the entire Plan area and connect to adjacent areas.
- New roads within the Plan area should be designed to accommodate all types of transportation, including by cyclists, regardless of the presence of bike lanes or off road paths.
- 4. Multi-use and/or Off-road paths should be designed such that they can serve both recreational and utilitarian cyclists by providing seamless connections to on-street components of the cycling network and providing a well lit path where feasible.
- 5. The pedestrian and bicycle network should be oriented and developed to encourage maximum use of the transit system.
- 6. Intersections within the Plan area should be designed to be attractive, safe, and inviting for pedestrian, cyclists and vehicles which must share the intersection.
- Development in the Plan area should incorporate amenities which will encourage bicycle use by residents, employees, and patrons, such as bicycle parking in residential, employment, and attraction areas and shower facilities in employment land uses.
- 8. Bicycle parking should be provided within or around rapid transit stations and at major attractions within the National Urban Park area.

The proposed Cycling Network within the Downsview Area Secondary Plan is shown in Figure 9. This network takes into consideration both utilitarian and recreational users and incorporates a classification of the cycling infrastructure for the Secondary Plan area that consists of both onstreet and off-street facilities, and is typically categorized into the following three types:



Figure 9. Proposed Cycling Network

Shared Roadway (Signed Routes)

On-street bike traffic typically shares the road with motorized vehicles. Cyclists can travel easily and safely under these conditions provided motor vehicle traffic (i.e. speed, volume, and space occupied) allows for cycling. In response to public comments at PIC #3, a shared roadway route was added at the south end of Stanley Greene District to provide a link to the shared route along Keswick Road/Plewes Road that was identified in the City's Cycling Master Plan.

Bicycle Lanes

 Bicycle lanes are on-street cycling routes, which are explicitly dedicated to bicycle traffic through signing, pavement markings, and/or physical barriers.

Multi-Use Routes

 A multi-use path is a paved off-street facility, physically separated from a roadway, which is available to cyclists, pedestrians, in-line skaters, joggers. Multi-use pathways are typically located in arterial roads within the proposed right of way.







City of Toronto

The proposed Pedestrian Plan for the Downsview Area Secondary Plan includes a number of elements that have been designed to capture expected pedestrian travel patterns in the area. The recommended plan is shown in Figure 10 and includes.



Figure 10. Recommended Pedestrian Network

- **Sidewalks** will be provided on both sides of all roadways in the Downsview Area Secondary Plan to promote walking and transit use within each of the districts. All sidewalks should be provided within the road right of way;
- Multi-Use Pathways including paved off-street facilities that are physically separated from a roadway and are available to cyclists, pedestrians, in-line skaters, joggers, etc. These routes are envisioned on the Transit Road Extension, along the Keele Street fronting the National Urban Park and the new entrance to the National Urban Park, on the east-west perimeter road around the National Urban Park, and on the west side of the Bombardier runway. The existing bridge crossing of Sheppard Avenue that currently links the William Baker district to the National Urban Park should also be converted to a pedestrian / cycling facility linking to a multi-use pathway system through the woodlot in the William Baker district. Multi-use pathways identified in this plan are recommended to be incorporated within the proposed right of way for the roadways that they follow, where applicable. One notable exception to this is the multi-use path though the woodlot in the William Baker district, which is envisioned to be a separate walking facility through park lands.
- Neighbourhood Pedestrian Connections will link existing residential neighbourhoods to the Downsview Area Secondary Plan. These connections will include enhanced pedestrian treatments to achieve pleasant, convenient, safe access to and between all major land uses, transit stations, parking areas, public streets, and areas surrounding the Plan area. These connections are not typically located within the right of way and may include connections through parks, or existing walking paths. Neighbourhood pedestrian connections will be provided to the neighbourhoods to the south abutting the Stanley Greene district, to the east adjacent to Allen district and to the north adjacent to the Sheppard district. In response to public comments at PIC #3 a neighbourhood pedestrian connection

was added at the south end of the Stanley Greene District to provide a new crossing at the CN rail line.

• Special Pedestrian Corridors that are considered as primarily pedestrian routes intended to carry large volumes of foot traffic. These facilities should feature wider sidewalks, trees / shelters, benches, and other pedestrian amenities within the right of way to make walking more amenable to various members of the population. It is envisioned that such corridors will provide connectivity to the high pedestrian traffic areas such as proposed Sheppard West transit station, the National Urban Park, and Sports and Cultural Commons areas along Carl Hall Road.









2.3 Road Network Plan

The Recommended Road Network is the same as presented in the Phase 3 Report and features the at-grade crossings of Allen Road as opposed to the other two concepts that feature grade separated crossing treatments. This alternative represents the best opportunity to achieve the City's urban design vision for Allen Road while maintaining acceptable network performance characteristics.

The Recommended Road Network achieves the urban design vision for the Allen Road corridor and offers the opportunity to provide an urban streetscape and character reflective of a typical arterial road rather than a highway environment that emphasizes high capacity and high speeds. The recommended Allen Road concept provides the opportunity to integrate the Allen Road corridor into the adjacent land uses; allows for the use of the corridor by all modes of transportation, including pedestrians; and achieves an acceptable balance between the need to provide high capacity and the need to develop a vibrant urban community.

The connectivity between Allen Road, Transit Road Extension and the new north-south road through the Build Toronto lands enables the removal of the existing Wilson Heights Boulevard Ramps and the directional ramps recommended in the existing Transportation Master Plan.

The Recommended Road Network strives to achieve the objective of providing a comprehensive road structure which links the Secondary Plan's two major NS gateways, Keele Street and Allen Road and introduces a fine grain road network. The recommended network also responds to the physical constraints and characteristics of the CN rail line, Bombardier runway, DND headquarters, TTC Wilson rail yards, Allen Road and a contiguous National Urban Park.

The Recommended Road Network forms the basis upon which the recommended Transit, Cycling and Pedestrian Plans are built on. In combination, these four networks form the Recommended Transportation Network, which supports the proposed development levels of the Recommended Land Use Plan.

AECOM

City of Toronto



- The major roadway elements in the Recommended Road Network are illustrated in Figure 11, and include:
 - A north-south Transit Road Extension from Allen Road through the Chesswood district to Sheppard Avenue West. The Transit Road Extension, combined with the east-west connection to Keele Street provides direct access to the majority of the high density development areas in the Secondary Plan, and directs traffic away from the heavily used Keele Street, Allen Road and Sheppard Avenue West corridors;
 - 2. An east-west road from Chesswood district to Keele Street provides connectivity to the N-S Transit Road Extension and eventually to Allen Road. It is necessary to provide additional capacity to carry the development traffic to and from the Keele Street and Allen Road corridors, supplementing Sheppard Avenue which is already operating close to capacity. The roadway crosses the CN rail line via a grade separation that will be required to provide sufficient capacity and ensure uninterrupted traffic flow;
 - 3. A new north-south link though the Build Toronto Lands that runs parallel to Allen Road will provide direct access to the various development areas within these lands. The parallel road provides access to a series of roadway crossings designed to replace the need for the direct ramps between Allen Road and the Transit Road Extension; and
 - 4. The east-west perimeter road at the south end of the Plan provides access to the Sports/Cultural Commons Centre and defines the southern limit of the National Urban Park district. This road is expected to carry modest traffic volumes but will nevertheless play an important role in providing additional east-west connectivity through the Secondary Plan Area to relieve both Keele Street and Sheppard Avenue. In addition, the proposed alignment provides the opportunity to provide enhanced transit access to the National Urban Park, and provides pedestrian and cycling access across the CN Rail line. As such, this connection should ultimately include a grade separation at the CN line crossing.

Figure 11. Recommended Road Network

Future potential major roadway elements in the Recommended Road Network include:

- 5. The potential north-south link to Wilson Avenue will provide a southern access through the Stanley Greene district, ultimately linking it to Wilson Avenue just east of Keele Street. This connection will take pressure off the Keele Street corridor and the Keele Street / Wilson Avenue intersection, and plays a key role in linking to the east-west perimeter road. This north-south link has also been identified as a key part of the future preferred transit route to provide enhanced transit access to Wilson Avenue, the ORC / hospital complex, and ultimately to the Jane Street corridor. This route has also been identified as a key pedestrian and cycling linkage into the Secondary Plan Area and should be protected for; and
- 6. Dufferin Street Extension. The north section extends from the new eastwest road marking the southern limits of the National Urban Park district to Sheppard Avenue. This section provides access to the Sheppard district and the Sports/Cultural Commons Centre. The southern section that extends across the Bombardier runway taxi-way to Beffort Road is shown as a potential requirement in the future that should be protected.

Other major roadway elements in the Recommended Road Network:

7. Roadways identified as collectors through the Stanley Greene, William Baker, Sheppard, Chesswood, and Allen districts play an important role by establishing a foundation for a fine-grain road network that links residential and employment areas to one another, parks and open spaces, transit hubs, pedestrian and cycling routes and major roadways.

A new Downsview Park Entrance Road off of Keele Street will provide improved access to the park and will provide some relief to traffic operations at the Keele Street and Sheppard Avenue intersection. More importantly, it will serve as the main access to the National Urban Park district and its amenities and will also provide enhanced pedestrian and cyclist access from Keele Street to the National Urban Park. To protect this role, the new Entrance Road has been designated as a local road in the Recommended Road Network Plan, with the primary purpose being to provide multi-modal access into the Secondary Plan Area.

In order to support the Recommended Road Network, some modification to the existing arterial road network will be required. The modifications will include requirements for new intersection improvements such as provision of turn lanes and traffic signals. With the exception of two localized areas, widening of the existing arterial roadways will not be required to support the redevelopment of Downsview Area lands. A description of modifications is as follows: The section of Allen Road between Transit Road and the off-ramp to Wilson Heights Boulevard will need widening in the northbound direction from two to three lanes. The widening will be required to accommodate additional traffic demands and will be accommodated within the existing 45m right of way (ROW) width. The section of Allen Road north of Transit Road connection has three lanes, with the outer lane reserved for bus access to the Downsview Station. It is understood that the City has been reviewing the lane arrangement in this area and may recommend the removal of this lane.

In view of the 2031 traffic volume demands, there may be a need to maintain the three through lanes on Allen Road, at least as far as the second E-W roadway crossing the Allen Road corridor. The ultimate decision on the final lane arrangement for the Allen Road corridor will need to be determined through subsequent detailed Environmental Assessment studies.

For the future requirements, termination of the general purpose usage of the lane should be determined based on, among other factors safety, during the detail design stage.

- 2. The existing approved TMP recommended modification of Keele Street to accommodate a center two-way left turn lane between Wilson Avenue to Finch Avenue. Future traffic volumes on Keele Street are forecast to be approaching the capacity for a 4 lane arterial road with the peak one way volume of 1580 vehicles per hour compared to a capacity of approximately 1600 vehicles per hour based on 2 lanes per direction. The Recommend Road Network includes a number of new road connections into the Secondary Plan area from the east side of Keele Street, which will increase the number of southbound left turn movements at the respective intersections. Left turn lanes will likely be required at the intersections to ensure that through capacity is not further reduced due to left turning vehicles, particularly at future signalized intersections. Therefore, it is recommended that the City continue to plan for a centre turn lane along Keele Street, between Wilson Avenue and Finch Avenue.
- 3. There may also be need to realign Tuscan Gate to connect to the new east-west road in the northern section of William Baker district. The realignment would involve elimination of the intersection with Tuscan Gate and Sheppard Avenue intersection because of its close proximity to the new intersection on the new east-west road that extends to Keele Street.





Potential Realignment to Tuscan Gate

Roadway Classifications

A road classification system groups streets into a hierarchical manner in accordance to the functions they play and their Right of Way (ROW) widths. In general, the hierarchy provides for a gradual gradation in service levels with the higher road classes providing high service levels and the lower ones lower service levels. Each class of road is provided with suitable ROW width commensurate with the number of lanes for vehicular traffic and additional amenities provided for the other road users. The amenities typically include boulevards, sidewalks, bicycle lanes, multi-use pathways and cycle paths.

Consideration of function has led to the designation of various ROW widths for the proposed streets in the Downsview Area. The ROW widths range from 45metres in the Allen corridor to 18.5 metres for streets carrying one lane of traffic in each direction. It is expected that laneways and local roads with widths of up to 18 metres may also be constructed as part of the subdivision and development agreements.

Figure 12 shows the proposed ROW widths for the major new roads in the Downsview Area. It is expected that these major new roads will be classified primarily as minor arterial and collector roads recognizing the function they will play in moving traffic in out of the area and providing connectivity to the surrounding network and within the various neighbourhoods. Notably, the City of Toronto road classification system From Official Plan terminology perspective, minor arterials and collector roads are classified as major and minor streets. Local roads will also be included within the various districts in the Secondary Plan as well, and these roads typically have a ROW width of 18.5 metres in accordance with City standards. Local roads have not been shown on Figure 14, below. Arterial roads will have ROW widths of 27 metres or higher, while collectors will have widths ranging from 20.0 metres to 30.0 metres in accordance with the City's Roadway Classification criteria.

The new entrance road to the National Urban Park and Carl Hall Road may ultimately remain as roadways under Federal jurisdiction as their primary role is to serve park related uses rather than traffic movement through the Secondary Plan Area.



Downsview Area Secondary Plan

Road Right-of-Way (ROW) Width





Allen Road Corridor

A 45 metre ROW width is provided for Allen Road to accommodate four traffic lanes, HOV/bus lanes and sidewalks. It is expected that high bus volumes will travel on this section of Allen Road to access the existing Downsview subway station located on the east side of Allen Road just south of Sheppard Avenue. As such a 4.5 metre wide bus lane is provided in the southbound direction, as recommended in the Environmental Assessment report for the Bus Only Lane project on Allen Road. In addition, a 7 metre to 8 metre wide median is provided to separate the north and southbound lanes and enhance the character of the street.

Figure 13 illustrates the proposed cross sections for the Allen Road corridor.



Figure 13. 45m ROW - Allen Road Sections

30 metre ROW – Sheppard District

A 30 metre ROW is recommended on the northern section of the Park Entrance Road through the Sheppard district between Carl Hall Road and the new Sheppard West TTC Subway and GO Transit station. Based on forecast traffic volumes this road will only require two lanes of traffic, and it is envisioned that on street bike lanes would be provided. This section will also act as a major pedestrian corridor carrying large volumes of pedestrians travelling between the park and the new transit station, particularly during special events. Wider sidewalks (4.0 metres wide) and a landscaped median treatment are recommended as are the provision of 1.5 metre bike lanes. To accommodate these requirements, a wider ROW is necessary, as illustrated in **Figure 14**.



Figure 14. 30m ROW – N/S Road through Sheppard District

27 metre ROW - Transit Road Extension & National Park Perimeter Road

A proposed ROW width of 27 metres is recommended for the N-S Transit Road Extension and the E-W perimeter road north of Bombardier lands, extending west to Keele Street. The Transit Road Extension is expected to carry high traffic volumes and will require two lanes of traffic in each travel direction. The Transit Road Extension has also been recommended for a multi-use pathway that includes off-road bike lanes within the proposed ROW, to ensure that this road functions as a multi-modal corridor providing access between Wilson Avenue and Sheppard Avenue for all road users. Figure 15 illustrates the proposed cross section for the Transit Road Extension, in the vicinity of the DND lands. In the vicinity of the DND lands the pedestrian and cycling facilities are proposed to be located on the west side of the Transit Road extension to address security requirements of DND.

The E-W perimeter Road surrounds the National Urban Park district and is expected to carry high pedestrian and cyclist traffic. Therefore, sidewalks and cycling facilities are also provided within the proposed ROW. The E-W perimeter road has also been identified as a key part of the Recommended Transit Network serving the Secondary Plan area, and forms part of a proposed "circulator type" transit service that could provide enhanced access to the National Urban Park.

In the longer term, this road connection may form part of a higher order transit line linking the new Sheppard West TTC Subway and GO Transit station to the Wilson Avenue corridor and ultimately the proposed Jane Street LRT line. It is recommended therefore, that the ROW width for this Perimeter Road be established at a minimum of 27 metres to protect for these future opportunities. Where the road crosses the CN Rail line, a wider ROW may be required to accommodate approach fills. This ultimate requirement will be defined during subsequent stages of the EA process for this specific corridor. Figure 16 illustrates the proposed cross section for the E-W Perimeter Road.





The new N-S road through the Build Toronto lands east of Allen Road also carries high traffic volumes and will requires 4 lanes, two in each direction of travel. This corridor has also been identified with on-road bike lanes. The basic ROW width for this corridor is recommend to be 27 metres, although this may need to be wider in the vicinity of the E-W roadways crossing the Allen Road corridor, where the need for dual left turn lanes may increase the property requirements within the intersection area. The limits of this widening would need to be identified during the subsequent stages of the EA process for this specific corridor. Implementation of this road, with the direct connection to Allen Road will require the elimination of the ramps from Allen Road to Wilson Heights Boulevard. Figure 17 illustrates the proposed ROW for the NS road through the Build Toronto lands.



Figure 17. N-S Road, Build Toronto Lands – 27m ROW

A ROW of 27 metres should also be provided and/or protected for on the proposed N-S link extending from Stanley Greene district to Wilson

Avenue, as well as the proposed future Dufferin Street extension. The N-S link through the Stanley Greene district was identified for on road bicycle lanes and was also identified as a special pedestrian corridor, linking the National Urban Park to Wilson Avenue. Although this road carries a moderate volume of traffic that could be accommodated on two traffic lanes, it is part of the preferred transit route and is also expected to carry significant cyclist and pedestrian traffic. To accommodate those facilities, a 27 metre ROW should be provided as illustrated in Figure 18, below.



Figure 18. N-S Road, Stanley Green District – 27m ROW

City of Toronto

A ROW of 27 metres should also be provided on the proposed EW road link extending from Keele Street to the Transit Road Extension. This road will carry significant traffic volumes and has been recommended as a four lane road, which will also serve as part of the Recommend Transit Network for the Downsview Area Secondary Plan, providing a link to the Sheppard West TTC Subway and GO Transit station. The road will also provide pedestrian and cycling access to the new transit station and has been recommended for on street bicycle lanes, between Keele Street and the Transit Road Extension. Where this facility crosses the CN Rail line, it has been recommended that this crossing be grade separated, and it is expected that the EW roadway will need to pass under the CN Rail tracks, requiring the use of retaining walls to avoid additional ROW requirements. It is recognized, however, that the proposed design of this facility will be confirmed as part of a subsequent Class EA study which may require additional property beyond the basic 27M ROW. Figure 19 illustrates the proposed cross section for this EW roadway for an at-grade portion of the facility.

The current ROW on Wilson Heights Boulevard varies from 36 metres to the south of the existing Allen Road ramps to 27 metres between the Allen Road ramps and Sheppard Avenue. With the Recommended Road Network and Land Use Plan, simulation modelling results indicate that volumes on portions of Wilson Heights Boulevard will reduce significantly compared to today, primarily due to the removal of the direct ramps and the construction of the new N-S roadway through the Build Toronto lands.

To the north of Joel Swirsky Boulevard future peak hour volumes are expected to be similar or slightly higher than today based on the simulation modelling completed for the Recommended Road Network. Therefore, it is recommended that Wilson Heights Boulevard be retained as a four lane road, throughout the Secondary Plan Area and thus the 27 metre ROW that currently exists will be sufficient for future needs. Figure 20 illustrates the proposed cross-section for Wilson Heights Boulevard, north of the current Allen Road ramps.



Figure 19. E-W Road, Keele Street to Transit Road Extension – 27m ROW



Figure 20. Wilson Heights Boulevard (N. of Clanton Park Rd) – 27 m ROW

49

Figures 21 and 22 illustrate the typical road way cross sections proposed for the local roads with an 18.5metre ROW and the collector roads with a 20.0metre ROW identified in Figure 10, above. The 18.5metre ROW is a City standard right of way for an intermediate local residential street and reflects two lanes of traffic with on street parking on one side of the roadway. The proposed cross section for the recommended 20.0metre ROW width also follows the standard 20.0metre ROW outlined in the City's policies and guidelines.



Figure 21. Typical 18.5m ROW



3.

Policies to Support the Plan

The development of a Transportation Master Plan is not only about new infrastructure, but includes a series of recommendations for new policies that will support the overall land use and transportation vision for the community. The Downsview Transportation Master Plan has been based on a transitoriented approach to community planning; one that requires an emphasis on the complementary polices that will help to create the vibrant urban centre envisioned for the Secondary Plan area and encourage the high levels of non-auto use that will control the growth in auto demands in the community.

Policy recommendations covering Parking Management, Transportation Demand Management, and Active Transportation (Walking and Cycling) are presented in the following sections.

3.1 Parking Management

Parking management strategies are used to:

- influence parking habits;
- ensure parking facilities are used efficiently;
- provide parking choice;
- ensure that there are pedestrian connections between parking facilities and the destinations they serve;
- provide adequate supply and address variable demand;
- respond to spill over impacts;
- reduce automobile dependency and encourage transportation alternatives; and
- facilitate proper facility design.

Parking supply in the Plan area should be managed, so that it supports the use of alternative modes of transportation while providing adequate parking so that off-site parking is discouraged. The Toronto Official Plan states that minimum and maximum parking requirements should be established for areas well serviced by transit.

Minimum parking standards are put in place to address problems related to undersupply of parking, which can cause parking spill over into adjacent residential neighbourhoods. Maximum parking standards are put in place to address the problem related to oversupply of parking, where additional parking spaces can discourage transit ridership or other alternative modes of transportation.

However, limiting parking supply can have an adverse effect on the neighbourhood, such as spill over parking into adjacent uses and residential areas. Therefore, a balanced maximum parking ratio should be implemented in conjunction with transportation demand management (TDM) strategies to control parking demand.

The following issues were taken into consideration when proposing new parking ratios:

- Transit use objectives of the Downsview Area Secondary Plan;
- The employment and visitation of the Plan area;
- The objectives relating to the provision of open space; and
- The need to protect adjacent residential and industrial communities from parking spill over.

A review of parking standards in the City of Toronto and other parking studies was undertaken to provide context for standards used in other areas of the City. A summary of parking ratios found for the proposed uses are shown in Table 2.

Table 2. Summary of Parking Standards

	Parking Ratio							
Land Use	North York Zoning By-Law	North York Centre		IBI Report ¹ (Centres)		IBI Report ¹ (Avenues)		
		Min	Мах	Min	Мах	Min	Мах	
	(Space/100 m ²)							
Office								
Within 500m of Subway	2.08	0.9	1.00 - 1.40 (2)	1.00	1.40	1.00	2.00	
Outside 500m of Subway	2.08	0.9	1.40	1.00	1.40	1.00	2.00	
Retail	3.57 - 6.67 ⁽³⁾			0 (4)/1	4.00	0 (4)/1	4.00	
Industrial	2.38 or > ⁽³⁾	-	-	-	-			
Recreational	3.57	-	-	-	-			
Cultural	3.57	-	-	-	-			
	(Space/unit)							
Multiple Attached Dwelling	1.75-2.00/0.25 visitor							
Single Family Detached Dwelling	2.00							
Apartment								
Within 500m of Subway	1.5/0.25 visitor	1.0/0.1 visitor	1.2/0.1 visitor					
Outside 500m of Subway	1.5/0.25 visitor	1.0/0.1 visitor	1.4/0.1 visitor					

 "Review of the City of Toronto Zoning By-law Parking Standards for Office, Retail and Restaurant Uses" – Final Report, March 2007, IBI Group

(2) Depending on Distance to Subway Station

P = 1 + 0.0008 x *D* for 0<*D*<500

Where: P =Number of parking spaces per 100m² of GFA

D = distance in meters measured horizontally and by a straight line, from the centroid of a floor plate of the building nearest to any subway station entrance

- (3) Depending on size of development
- (4) Parking minimum exempted for ancillary use in building, which must meet three criteria: In mixed commercial/residential building in Mixed Use Area

 $GFA < 150m^2$

Located at ground floor (e.g. ground floor store or bank in residential building)

Guiding Principles for Parking Policies

A series of parking policies are recommended for consideration within the Secondary Plan Area that includes the following initiatives:

Encourage Transit Use/Carpooling

- Minimum and maximum parking ratios should be applied to developments in the Plan area to control/manage the supply of parking in order to support a high level of non-auto usage
- The cost of providing parking should be recognized in the context of producing development plans within the Plan area. To this end, long term / all day parking in shared facilities should be priced to encourage transit use
- Establish and promote initiatives to reward carpoolers/vanpoolers at parking lots
- Establish and promote initiatives to reward parking lot operators that provide incentives to carpoolers/vanpoolers
- Dedicate priority parking spaces for carpool ride sharing and ultra low emission vehicles

Specific Policy Considerations

- The adjoining residential and industrial areas adjacent to the Secondary Plan Area should be protected from parking spill over
- The supply of parking as an independent use should not be considered as an acceptable use within the Plan area. The only exception to this, could be considered for the parking related to the National Urban Park, which should provide separate parking facilities to accommodate normal expected usage and overflow conditions
- The development of parking facilities in the neighbouring residential and industrial communities should be prohibited to prevent traffic infiltration into communities
- The sharing of parking facilities, where parking patterns permit, should be encouraged to minimize the provision of excess parking facilities
- The City should consider the development of policies to permit cash-in-lieu of parking within the mixed use and employment neighbourhoods in the Secondary plan area
- The City should establish a target of 60% of parking spaces in apartment, mixed use, and employment neighbourhoods should be in garages (at build out of the Secondary Plan)
- Surface and structure parking lots consume a huge amount of land that could otherwise be developed. They also present unattractive environments that isolate uses and preclude pedestrian-friendly streets. To ensure that the parking supply is managed within the Secondary Plan Area, the City should consider enacting zoning by-law provisions that will allow for up to a 10% reduction in required number of parking spaces for developments within 500m of a subway station that have prepared and submitted a Transportation Demand Management Plan that demonstrates how they will reduce auto vehicle trip making to the development site
- The City should consider the development of policies that encourage the "un-bundling" of parking costs from residential units in multi-unit residential developments at the time of purchase. Typically the costs to provide this are incorporated into the cost of the unit itself, hidden from the consumer. Unbundling these costs allows buyers to purchase the amount of parking they actually require and may make them think twice about how many vehicles they decide to purchase
- Develop minimum and maximum parking requirements for various land uses

Parking Design Considerations

- Surface parking areas should be located to the rear or side yards where possible and should be subdivided by landscaped traffic islands that provide safe direct pedestrian pathways to principle building entrances by co-ordinated pedestrian amenities including paved walkways, lighting and signs
- All surface parking areas in land use districts should be hard-surfaced and built to municipal standards, expect for overflow parking for the National Urban Park, which may utilize alternative surfaces
- Improve parking lot designs to create pedestrian-friendly paths and connections between various destinations while accommodating special needs such as wheelchairs, walkers, strollers and hand carts

Accessibility Considerations

- The design of parking facilities should adhere to the City of Toronto Downsview Urban Design Guidelines (June 2004) and the City of Toronto Accessibility Design Guidelines (2004)
- In no case should the number of accessible parking spaces be less than 4 for the first 100 spaces (i.e. 1:25 parking spaces) plus 2 spaces for each additional 100 parking spaces (i.e. 1:50). No less than 1 accessible parking space should be provided where the number of parking spaces provided is less than 25
- In multi-storey or underground parking garages, at least one level of parking should include easy to locate accessible parking spaces



Parking Ratios

The following parking ratios are being proposed to be incorporated into the Downsview Transportation Master Plan:

Office

Minimum and maximum ratios were determined for two types of developments: 1) within a 500m radius of a subway station, and 2) outside the 500m radius. This was done due to the increased tendency for an individual to take transit the closer a development is to a subway station, thus requiring a lower parking ratio. This approach is also used for the parking standards contained in the North York Centre Secondary Plan. The recommended ratios for office uses were based on the recommendations found in the IBI report, which take into consideration a review of parking standards across the City of Toronto and parking surveys done across the City.

For office developments located within a 500m radius of a subway station, the recommended minimum and maximum ratios are 1.0 and 1.4 spaces/100 m² respectively².For developments located outside the 500m radius, a minimum and maximum ratio of 1.0 and 2.0 spaces/100 m² respectively are recommended³. The maximum in this case is slightly less than the minimum contained in the North York zoning by-law.

Retail

The North York zoning by-law requires a minimum parking ratio of 3.57 to 6.67 spaces/100 m², depending on the size of the development. This ratio is used across the entire North York district. This ratio does not take into consideration proximity to higher order transit. In the Downsview area a high transit usage is expected therefore, a minimum and maximum of 1.00 and 4.00 spaces/100 m² respectively are proposed⁴.

Industrial

The North York zoning by-law requires a minimum of 2.38 spaces/100 m2, depending on the size of the development. Again, since the ratio does not reflect proximity to transit services, a slight reduction in this ratio is being proposed. The minimum and maximum ratios recommended are 1.00 and 2.00 spaces/100 m2, respectively.

Recreational/Cultural

In addition to the North York zoning by-law which requires a minimum of 3.57 spaces/100 m², the ITE Parking Generation Manual (3rd edition) Recreational Community Center (LU 495) was also reviewed for estimating the parking ratio for recreational and cultural uses. Surveys undertaken for recreational facilities in suburban locations showed that a weekday parking

² Based on the standards for centres that have high accessibility to higher order transit.

³ Based on the recommended rate for avenues, which generally have good access to surface transit but not as good access to higher order transit.

⁴ Based on recommended parking ratios in the IBI report for both Centres and Avenue.

demand of 1.15 vehicles per 1,000 sf (1.24 vehicles per $100m^2$) and a Sunday peak parking demand of 4.00 vehicles per 1,000 sf (4.30 vehicles per $100m^2$).

Because the surveys were done in suburban location, which assumed poor access to transit, the parking ratios recommended are lower than both the North York by-law and the ITE Parking Generation Manual. A minimum of 1.00 spaces/100 m² and a maximum of 3.50 spaces/100 m² are recommended.

Residential

Parking ratios for low density residential developments (i.e. single-family detached and townhouses) are recommended to stay the same as the North York zoning by-law, as shown in Table 10. However, parking ratio for mid to high density developments is recommended to be reduced from the by-law.

Higher density developments were divided into two groups: 1) developments that fall within a 500m radius of a subway station, and 2) developments that fall outside the 500m radius of a subway station.

For residential developments located within a 500m radius of a subway station, the recommended minimum and maximum ratios are 1.0 and 1.2 spaces/unit respectively, which includes 0.1 spaces/unit for visitor parking. For developments located outside the 500m radius, a minimum and maximum ratio of 1.0 and 1.4 spaces/unit respectively are recommended. This includes 0.1 spaces/unit for visitor parking. These rates are consistent with what has been used in the North York Centre where access to higher order transit is good, similar to what is expected in the Plan area.

The recommended minimum and maximum parking ratios for the Plan area are summarized in Table 3.

Land Use	Minimum	Maximum		
	(Space/100 m2)			
Office				
Within 500m of Subway	1.00	1.40		
 Outside 500m of Subway 	1.00	2.00		
Retail	0 (1)/1	4.00		
Industrial	1.00	2.00		
Recreational	1.00	3.50		
Cultural	1.00	3.50		
Land Use	(Space/unit)			
Multiple Attached Dwelling	1.75/0.25 visitor	2.00/0.25 visitor		
Single Family Detached Dwelling	2.00	2.00		
Apartment				
Within 500m of Subway	1.0/0.1 visitor	1.2/0.1 visitor		
 Outside 500m of Subway 	1.0/0.1 visitor	1.4/0.1 visitor		

Table 3. Recommended Base Parking Standards

(1) Parking minimum exempted for ancillary use in building, which must meet three criteria:

- In mixed commercial/residential building in Mixed Use Area

- GFA<150m2

- Located at ground floor (e.g. ground floor store or bank in residential building)

Parking for the National Urban Park

The proximity of the National Urban Park to the new Sheppard West Subway Station will enhance the attractiveness for park users to use transit. For the new park uses, it is expected that up to 75% of visitors will use non-auto modes of travel. That being said, it is recognized that many occasional visitors to the National Urban Park will continue to travel by car, particularly those that are from out of town, and current users of the various sports facilities.

Based on traffic counts undertaken during the study and the trip generation estimates used for the National Urban Park, it is expected that approximately 1,500 parking spaces will be required to accommodate normal weekday usage. These spaces should be distributed throughout the park to service the various activity areas within the park grounds, and should be located in close proximity to the circulator transit service and to walking and cycling infrastructure within the park so that visitors do need to use their car for travel to different activity areas within the park grounds.

ParcDownsview Park Inc. should also provide overflow parking within their grounds that can accommodate between 1,000 and 2,000 additional vehicles during events or for peak visitation periods on summer weekends to avoid infiltration of traffic into adjacent neighbourhoods. The overflow parking does not need to be provided as permanent spaces within the park grounds, but could include use of parking areas in adjacent areas that do not have peak parking demands that coincide with summer weekend periods.

It is recommended that parking requirements for major events, (such as the World Youth Day or concerts that have occurred in the past) be handled through a permit process through the City. As part of that process, a parking plan would need to be developed in accordance with the anticipated attendance for the event that may include the use of offsite parking, shuttle services, and other parking management measures.

3.2



Transportation and Land Use System Source: Transport Canada

Research shows AT&T tele-workers are much less likely to jump ship than in-office staff, according to Joseph Roitz, AT&T's telework director.

"Turnover in our virtual office population is half that of the turnover in our general salaried employee population," Roitz says.

"Lemmings make leap to teleworkers", Ann Bednarz, Network World (20 Jan 2006)

Transportation Demand Management Policies

Transportation Demand Management (TDM), in its simplest form, is a series of specialized policies, targeted programs, and innovative mobility services and products that work to influence *whether, why, when, where* and *how* people travel. The purpose is to manage and maximize the movement of "people", rather than motor vehicles, within the transportation system. TDM considers both the transportation actions which affect the travel time, cost and other considerations that shape travel behaviour, as well as a specialized way of implementing these actions, often through legal and institutional approaches. Its main objective is to make personal travel decisions more sustainable and to make more efficient use of our existing transportation system by giving priority to more efficient modes such as walking, cycling, ridesharing, public transit and telecommuting.

TDM strategies are needed to reduce the use of the automobile, in particular single-occupancy vehicles, and to encourage more sustainable modes of travel such as transit, walking, and cycling. In the Plan area, a 30-50% non-auto mode split is expected due to easy accessibility to higher order transit (i.e. two existing subway stations, a new subway station with a GO Transit interchange), improved transit access to the Downsview area, and transit-oriented land use around the subway stations. In addition to the expected high transit use in the study area, TDM measures will need to be implemented to support the growth expected in the Downsview Area Secondary Plan in a sustainable manner.

The Toronto Official Plan embraces a broad range of TDM initiatives such as:

- increasing the proportion of trips made by transit, walking, and cycling;
- increasing the average car occupancy rate;
- reducing the demand for vehicular travel; and
- shifting travel times from peak to off-peak periods.

The implementation of TDM measures within the Plan area will be done mostly with the help of a Transportation Management Association (TMA). The study area is currently served by Smart Commute – North Toronto, Vaughan (NTV) which is a not-for-profit TMA. Smart Commute NTV is supported by York Region, City of Vaughan, City of Toronto, and the Toronto Atmospheric Fund. Park DownsviewParc Inc. (PDPI) is currently a member of this association.

The success of the various TDM measures is partly dependent on the development and implementation of individualized marketing strategies directed at specific target groups such as employers, households, transit users, etc. Target marketing would focus on issues of relevance to particular groups and increase the chances of the TDM "message" being understood.

Summary of TDM Policies

TDM strategies in the following categories are recommended for the Plan area and discussed below:

Walking and Cycling

Measures that may be implemented to encourage walking and cycling in the Plan area are discussed in Section 3.3 Active Transportation.

Transit

Traditional transit service must be supported by other TDM measures to fully realize the potential non-auto mode share targets that have been utilized in the development of this plan. The following measures should be considered to encourage shifts to transit:

Affordability

- Encourage employers to provide transit subsidies to reduce automobile usage as an alternative to subsidized employee parking
- Provide permanent transit passes for each home/residence within the Secondary Plan Area as implemented through a recently passed a by-law requiring condominium developments to provide a one year TTC Metropass for each unit in the building

Convenience & Comfort

- Implement "smart card" technology for transit fare payment to provide a convenient service to all users and to optimize transit operations (currently under study by Metrolinx)
- Consider private shuttles for areas not well served by public transit (application in National Park area)
- Provide enclosed transit shelters with consideration given to heating in the winter and cooling in the summer to provide year-round comfort to users
- Integrate cycling and pedestrian infrastructure with transit facilities to provide a high level of mobility comparable to automobile travel. This may be accomplished by equipping transit vehicles with bike racks or allowing bicycles in vehicles (during off-peak periods) and providing bicycle parking at transit stops with security and lighting

Accessibility

- All pedestrian routes to the main entrance and/or other accessible entrances to transit facilities should provide a safe, direct, level and obstacle free path of travel for persons with mobility or visual limitations
- In situations where accessible pedestrian routes cross into vehicular routes, crossings with suitable curb ramps identified by bright yellow or white lines and/or distinct paving should be provided

Accessibility Considerations

- The design of parking facilities should adhere to the City of Toronto Downsview Urban Design Guidelines (June 2004) and the City of Toronto Accessibility Design Guidelines (2004)
- In no case should the number of accessible parking spaces be less than 4 for the first 100 spaces (i.e. 1:25 parking spaces) plus 2 spaces for each additional 100 parking spaces (i.e. 1:50). No less than 1 accessible parking space should be provided where the number of parking spaces provided is less than 25
- In multi-storey or underground parking garages, at least one level of parking should include easy to locate accessible parking spaces

Parking Management

Parking price, availability, location, and connection with other modes are significant factors in modal choice and discretionary trip-making. Complete details of parking management strategies were presented in Section 3.1.

Land Use Management

Land use patterns have significant potential to influence the need for travel, average trip length, and modal choice. Future land use planning must continue to make non-auto travel possible and take greater steps to support the use of alternative modes. The implementation of land use strategies at a variety of geographic scales provide transportation choice to residents and encourage non-auto modes of transportation. The following are some land use strategies that may be implemented in the Plan area:

- Secondary Plan;
- Land use strategies and site plans should adhere to the City of Toronto Downsview Urban Design Guidelines (June 2004) and the City of Toronto Accessibility Design Guidelines (2004);
- Work in partnership with the development industry to ensure proposals are consistent with the City's requirements and vision for the Plan area and to ensure marketplace acceptance;
- Provide incentives for ground-floor retail and upper-level residential uses in existing and future development;
- Support development concepts that will alter live-work ratios to encourage more people living and working in the same community;
- Establish minimum bicycle parking requirements for all new residential and commercial developments;
- Avoid use of large scale parking lots and situate parking to enhance the pedestrian/cycling environment and facilitate access and connections between destinations; and
- Include walking, cycling, carpooling and transit component assessments in Transportation Impact Studies for all new developments.

Ride Sharing

Ride sharing, also referred to as carpooling or vanpooling, can reduce the number of single occupant vehicles on the roadways. There are a number of supporting strategies that promote ridesharing by making them more attractive, such as:

- High Occupancy Vehicle (HOV) facilities;
- preferential parking for carpools / vanpools;
- on-site TDM co-ordinator;
- incentives such as a guaranteed ride home service or carpool subsidies; and
- parking pricing.

Alternative Work Schedules

Alternative work schedules should be encouraged to help reduce peak period commute travel. These include flextime, compressed work week (CWW), and staggered shifts. Employers should be encouraged to allow alternative work schedules where possible. These measures can be incompatible with other TDM measures, such as carpooling.

Telecommuting

Telecommuting is the term used for employees who work from home instead of a central office. Given the wide availability of high-speed internet services and other technologies, telecommuting has become an attractive TDM measure.

All development districts within the Secondary Plan area should be fully serviced with infrastructure to accommodate high speed internet services in all residential areas. In addition, the City should develop zoning by-laws that recognize and encourage the establishment of home-based occupations in residential areas provide that they do not adversely impact the use and enjoyment of adjacent residential properties.

• Update the Downsview Urban Design Guidelines to take into consideration the proposed land use patterns in the

Summary

It is expected that, with the implementation of the various TDM measures in the Plan area, significant opportunity exists to reduce auto trip generation especially for development in the employment and mixed-use areas. Achieving reductions in traditional trip generation rates could result in an increase in the level of density that could be permitted in these lands over time.

3.3 Policies to Support Active Transportation

Walking and cycling are active modes of transportation that are convenient for relatively short trips. Both are beneficial in terms of their environmental and public health impacts. Choice of walking/cycling modes is influenced by demographics and personal characteristics such as age and ability. Active transportation modes are constrained by weather and distance of travel, as well as the availability of infrastructure such as bicycle lanes and parking facilities and pedestrian pathways/sidewalks.

Transportation policies and strategies can either support or impede walking and cycling in neighbourhoods depending on how they are implemented. Evidence suggests that travel patterns are influenced by pedestrian/cycling infrastructure improvements specifically for active transportation. There are a number of strategies that promote active transportation such as:

Design of Pedestrian Facilities

- Design pedestrian streets to be attractive and lively to serve as both a destination and a thoroughfare by forming a connection between various uses such as transit, the park, residential areas and places of employment;
- Pedestrian infrastructure should:
 - include design elements such as greenery, shade, rain covers, artistic and cultural amenities, street-level building features and street furniture
 - provide direct integration with existing pedestrian routes
 - provide appropriate grading and surface treatment, in accordance with the Toronto Accessibility Design Guidelines, the Official Plan, Urban Design Guidelines, and the Draft Toronto Streetscape Manual, as appropriate

Accessibility

- All pedestrian routes should provide a safe, direct, level and obstacle free path of travel for persons with mobility or visual limitations
- Provide clear and sufficient signage for all pedestrian and cycling routes
- Slopes of walkways should not exceed 1:20 (5%). Where steeper walks are necessary, nearby stairs should be provided and the slopes should be treated as ramps
- Both audible and flashing crossing signals should be provided as an aid to persons who have hearing or visual limitations

 Establish winter and general maintenance standards that focus on the needs of pedestrians and cyclists to ensure year-round accessibility

Cycling

- The Recommended Plan provides a transportation network that will support cycling either by providing bike lanes, multi-use paths or signed routes that will encourage cycling in the area and by providing connections between various uses such as transit, park, residential areas and places of employment
- Establish minimum bicycle parking requirements with consideration given to the short and long term storage requirements, location, security, visibility, weather protection and clearance around racks for safety and manoeuvrability
- Provide shower/changing facilities for employees in employment locations greater than 10,000 m² GFA
- Implement a bicycle sharing program to provide convenient rental bicycles intended for short utilitarian urban trips. This may be accomplished by creating a bicycle rental program that allows a user to rent a bike at one location and return to another

Educational Programs

 Implement educational and promotional programs such as developing educational programs on the benefits of active living, develop "tour" route based around the open space area, and conduct safety and personal security audits of all areas 4.1

4. Implementation of the Plan

Implementation Phasing and Priorities

The analysis in the Phase 3 report identified the recommended roadway network that is required to support the ultimate traffic demands expected from background growth and planned developments by 2031. It is recognized that development will be phased in gradually over the planning horizon and as such the provision of critical infrastructure elements must be staged to support development as it occurs.

An infrastructure staging analysis was undertaken to identify elements of the recommended roadway network that must be in place to support growth in traffic demand by 2021 (midpoint in the 20 year planning horizon for the Downsview Area Secondary Plan).

This assessment has recognized that many of the local and collector road links within the various development districts will need to be provided in conjunction with development, to provide access to properties or for servicing needs. The following minor arterial roads play a role in serving traffic generated in more than one specific district and therefore may need to be provided prior to allowing development to occur. These roads, illustrated in Figure 23, were therefore selected for the assessment of implementation phasing and include:

- 1. Transit Road Extension;
- 2. East-West Connection from Transit Road Extension to Keele Street with an overpass at the CN line;
- 3. East-West Link at the National Park southern perimeter;
- 4. Allen Road Crossing South; and
- 5. Allen Road Crossing North.

Traffic demands for the 2021 horizon year were estimated based on background traffic volumes plus 100% build out of the development in the Stanley Greene district plus 50% build out of the development in the remaining districts, as shown in Table 4. A summary of the resultant traffic demands is shown in Table 5.
Districts	Future 2021 Development		
	# units	Non-Residential GFA (m ²)	
Stanley Greene	1,356	-	
William Baker	1,767	5,819	
Sheppard	512	143,420	
Chesswood	-	48,176	
Allen			
East Side	1,266	77,718	
West Side	698	44,645	
Wilson	-	104,143	
Bombardier & DND & TTC	-	289,116	
National Urban Park	-	73,965	
Total	5,599	787,000	

Table 4: Future 2021 Build Out of Development by District

Table 5: Future 2021 Traffic Demands used in StagingAnalysis

	AM		PM	
Land Use/Community	Total Trips		Total Trips	
	2021	2031	2021	2031
Total New Trips in	6 6 4 7	10 192	6 0 1 9	11 225
Secondary Plan Area	0,047	10,103	0,940	11,225
Background ²	37,606	39,633	39,099	41,205
Total	44,253	49,816	46,047	52,430

¹ Includes trips to east and west side of Allen Road

² Includes trips to Bombardier, DND and TTC lands

From Table 4, site trips in 2021 are estimated at 62-65% of the 2031 trips, while total traffic demands including background traffic volumes will amount to 88 to 89% of the forecast 2031 demands.

Figure 23: Assumptions on Construction of Recommended Road Network



The analysis considered six scenarios to correspond with the street sections outlined in Figure 23. The assessment of the need for these critical road segments was based on a comparison of volume to capacity (v/c) ratios on the existing road network under the base case (with all links in place) compared to the results obtained without one or more of the links in place. The detailed analysis memorandum is provided in Appendix E.

Analysis Results

A summary of the analysis results for the various scenarios is presented in Table 6. The table provides a summary of the scenario considered, the resulting level of service based on a calculation of the volume to capacity ratio on the major roadway sections in the Plan area and a concluding statement of the impacts of each scenario on the road network.

Table 6: Summary of Staging Analysis Results

	Scenario	Resulting Level of Service	Conclusion
1.	Base Case – Recommended Road Network (for comparison purposes)	Mixed with surrounding arterial roads at or near capacity	Will provide sufficient capacity to accommodate expected traffic volumes at acceptable levels of service in 2021. The surrounding arterial roads will continue to operate at or close to capacity as they do under existing conditions.
2.	Removal of Transit Road Extension	Allen Rd / Sheppard Ave at or exceeding capacity	Since both Allen Road and Sheppard Avenue do not have sufficient capacities to accommodate the additional demands, Transit Road Extension should be constructed by 2021 to ensure satisfactory traffic operations.
3.	Removal of the East-West Connection from Transit Road Extension to Keele Street with overpass at the CN line	Allen Rd / Sheppard Ave at or exceeding capacity	The East-West Connection across the CN line will be required by 2021 to ensure satisfactory traffic operations.
4.	Removal of East-West link to Keele Street at CN Rail Line	Transit Rd extension exceeding capacity in some areas	Although the link is not expected to play a significant role in traffic operations, it forms part of the recommended transit network and provides transit service connection from Stanley Greene district and the National Park to the new subway station. Without the link, alternative transit service routing should be considered.
5.	Removal of Allen Road Crossing South	Allen Rd and North Crossing Road over capacity	Allen Road Crossing South will be required by 2021 to ensure satisfactory traffic operations within the Allen district and the surrounding areas.
6.	Removal of Allen Road Crossing North	South Crossing Road at or near capacity	Allen Road Crossing North is not critical for traffic operations in 2021 because it will attract only a fraction of the volumes carried by the south crossing. The east leg of this road is intended to provide bus access to the existing Downsview Subway station and will likely be implemented in conjunction with the Bus Only lanes on Dufferin Street / Allen Road.

Summary of Results

To enable development in any given area, basic roadway elements are necessary as part of the servicing requirements. It was assumed that all local and collector roadways will be built as part of those servicing requirements. The following recommendations address the timing for construction of other key roadways in the Secondary Plan:

- The Stanley Green district was assumed to fully build by 2021, in all of the scenarios that were tested. Without the new southern Perimeter Road that crosses the CN Rail Line, there was minimal impact on the adjacent road network, even with 50% of the other districts built out. Build out within the Stanley Green district therefore can be accommodated prior to the construction of the remaining road segments in the Secondary Plan Area.
- 2. The Transit Road Extension to Chesswood Boulevard should be provided prior to any development growth proceeding in the Chesswood and Sheppard districts to ensure that the operation of the Allen Road / Sheppard Avenue intersection does not become worse than it is today.
- 3. The section of the east-west link between Sheppard Avenue and Keele Street is expected to be constructed as part of development in the William Baker district. If the development in the William Baker district is not underway by 2021, this new road should be in place prior to 2021 or to coincide with development growth in the Chesswood and Sheppard districts.
- 4. The East-West Connection from Transit Road Extension to Keele Street including the CN line overpass will need to be in place by 2021 or to coincide with the equivalent of 50% of the development build out in the William Baker, Sheppard, and Chesswood districts.

The east-west connection road from the Transit Road Extension to Keele Street is a particularly critical link in the network and the City should initiate the Class EA study and Detailed Design for this corridor as early as possible. To provide the grade separated crossing at the CN rail line, a rail track diversion may be required. A rail track diversion is also required to facilitate construction of the new Sheppard West / GO Transit station as well.

Early planning and design work for this new East-West road crossing would enable both projects to proceed concurrently, taking advantage of significant investment required for the temporary detour of the CN rail tracks and allowing the City to save significant capital dollars by integrating this project with TTC work.

- 5. Modifications on Allen Road and removal of the existing ramps to Wilson Heights Boulevard should not be undertaken until the new North-South arterial in the Build Toronto lands in Allen district is constructed. If the development in the Allen district is not underway by 2021, the portion of this new road between Allen Road and the Allen Road South Crossing should be in place prior to 2021 or to coincide with approximately 50% of the build out in the Chesswood, Sheppard and William Baker districts.
- 6. The Allen Road Crossing South should be constructed prior to 2021 or the equivalent of 50% of the planned development in the Chesswood

and Sheppard districts. This connection is critical to allow traffic to access the Transit Road extension and to avoid congestion on Allen Road.

- 7. The following roadways that can be built after 2021, but will be required by the year 2031 to complete the recommended road network for the Downsview Area Secondary Plan including:
 - a. Allen Road Crossing North; and
 - b. East-West link to Keele Street along the southern perimeter of the National Park. Ultimately, this road is required to support the recommended transit plan but in the interim, transit vehicles could use the new Park Entrance Road and the CN at grade crossing on Carl Hall Road.

Figure 24 illustrates the recommended staging of the major road network components within the Secondary Plan Area.



Figure 24: Summary of Roadway Staging Plan

4.2

Infrastructure Cost Estimates & Financing

Preliminary cost estimates have been prepared at a high level for the major infrastructure improvements recommended in the Recommended Road Network. The cost estimates presented in this report are based on the functional sketches of the proposed road network and unit cost estimates that reflect the basic cost per linear metre of roadway for various design configurations. For significant cost items not reflected in the typical unit cost figure (i.e. bridges or underpasses) these items have been estimated separately using unit cost estimates derived from typical bridge construction costs experienced in other areas. The cost estimates for road improvements reflect the basic costs associated with the work required to build the roadways and exclude the costs associated with general servicing (i.e. water, sewer, storm sewer) of the lands within the Secondary Plan area. These costs have been estimated separately as part of the servicing component of the Secondary Plan Review. Costs for local roads within the various districts in the Secondary Plan have not been included in this cost estimate as the final configuration and layout of this part of the road system may be subject to refinement during the site plan approval stage for these individual development areas.

For each major road improvement identified in the Transportation Master Plan, more detailed functional design and detailed design work will be completed during subsequent Environmental Assessment Studies that will refine the cost estimates presented in this report to reflect the final alignment and configuration of the individual roads, actual soil and groundwater conditions on the site, specific design treatments implemented to mitigate identified or potential environmental affects (i.e. storm water management facilities), integration with plans for adjacent land uses, and the addition of design features and supporting infrastructure that may be constructed in conjunction with the individual projects. Therefore, the estimates presented in this report are considered as "Planning Level Cost Estimates" and reflect the order of magnitude capital costs required to implement the recommended projects, expressed in 2009\$. Table 6 summarizes the unit costs for three different road cross sections developed for the Downsview Area Secondary Plan.

		Unit	
Road Type	Unit	Cost	Notes
A27m/30m – Arterial, 27/30 m ROW - 4 lanes, urban cross			
section, sidewalks, off-road bike lane	m	\$ 3,800	(excludes underground Services and Storm Sewer)
mC20m – Collector, 20m ROW - 2 lane, urban cross			
section, on-road bike lane	m	\$ 3,325	(excludes underground Services and Storm Sewer)
L18.5m – Local, 18.5m ROW - 2 lane			
urban cross section	m	\$ 2,660	(excludes underground Services and Storm Sewer)
Rail Underpass Structure, including retaining walls	m2	\$ 5,300	
Bridge Overpass	m2	\$ 3,400	
Direct one-way ramp overpass	m2	\$ 3,000	

Table 7 Unit Cost Assumptions, Road Network Improvements

The cost estimates for the Recommended Road Network are presented in Table 8,

Table 8	Cost Estimate -	Major Road	Improvements
		major reduc	mprovements

				Estimated
ID#	Project Description	Limits	Length	Cost
			(m)	
1	Transit Road Extension	Existing Transit Road to Road A	800	\$ 3,040,000
2	Transit Road Extension	From Road A to Chesswood Dr	1700	\$ 6,460,000
3	Road A	From Transit Road to Sheppard Ave	700	\$ 2,328,000
4	N-S Road - Build Toronto lands	From Allen Road to Sheppard Ave	1100	\$ 4,180,000
	Wilson Heights / Allen Road modifications	Removal of ramps to Wilson Heights and Transit Road / Allen Road intersection		\$ 1,200,000
5	Allen District Road C	Road A to N-S Road - Build Toronto lands	340	\$1,131,000
6	Allen District Road D	Transit Road Ext. toN-S Road-Build Toronto lands(including intersection improvements to Allen Rd) Transit Road Ext. to N-S Road-Build Toronto	320	\$1,216,000
7	Allen District Road E	lands	340	\$1,292,000
8	E-W Road F	Keele St to CN Rail Line	830	\$ 3,154,000
9	E-W Road F	CN Rail Line to Transit Road Extension	330	\$1,254,000
10	E-W Road F	CN Rail Line UnderPass	2300	\$12,190,000
11	National Park Perimeter Road G	E-W Road F (9) to Carl Hall Rd	600	\$ 2,280,000
12	National Park Perimeter Road G	Carl Hall Rd to CN Rail Line	1400	\$ 5,320,000
13	National Park Perimeter Road G	CN Rail Line to Stanley Greene N-S Rd (20)	570	\$2,166,000
14	National Park Perimeter Road G	Stanley Greene Rd (20) to Keele St	1020	\$3,876,000
15	National Park Perimeter Road G	CN Rail Grade Separation	7200	\$24,480,000
16	National Park Entrance Road H	Carl Hall Rd to E-W Road F	580	\$ 2,204,000
17	National Park Entrance Road H	E-W Road (8) to Sheppard Ave	350	\$1,164,000
18	Carl Hall Road Reconstruction	NP Entrance Rd H to N.P. Perimeter Road G	520	\$ 1,729,000
19	Stanley Greene Rd J	NP Perimeter Rd G to Limit of Park	440	\$ 1,672,000
20	Stanley Greene Rd J	Future Extension to Wilson Ave.	490	\$ 1,862,000
21	William Baker Rd K	Keele St to N.P. Entrance Rd H	535	\$ 1,779,000
22	William Baker Rd L	E-W Road F to Road K	270	\$ 898,000
23	William Baker Rd M	Keele St to N.P. Entrance Rd H	680	\$ 2,261,000
24	Chesswood District - Road N	Transit Rd Extension to Sheppard Ave W	370	\$ 1,231,000
25	Stanley Greene E-W Rd	Keele St to W of CN Rail line	680	\$ 2,261,000
26	Allen District Rd U	Allen District Rd B (4) to Wilson Heights Blvd	150	\$ 499,000
	Keele Street Widening -Centre Turn Lane	Wilson Avenue to Grandravine Drive	2700	\$ 5,940,000

Total \$ 99,067,000

Figure 25 illustrates the road improvement projects summarized in Table 9 above, based on the Recommended Road Network Plan.

4.3



Figure 25. Road Improvements

Future Environmental Assessment Requirements

The Municipal Class EA is an approved planning document which a proponent must follow for a class or group of undertakings in order to meet the requirements of the Environmental Assessment Act. By completing the Downsview Area Secondary Plan Review using the Master Planning process outlined in the Municipal Class EA, projects identified for implementation have satisfied the Phase 1 (Problem & Opportunity) and Phase 2 (Assessment of Alternative Solutions) requirements. For projects identified as Schedule B projects, approval of the Transportation Master Plan will provide the necessary EA approval for these projects and the municipality can proceed through to design and construction. For projects identified as Schedule C projects, subsequent Environmental Assessment Studies will be required to determine the preferred route, alignment, design treatment and measures to mitigate identified impacts associated with the project.

Projects can be classified into three main categories according to their environmental impacts. These categories are called Schedules in the Class EA document. These schedules are explained below:

- Schedule A projects are limited in scale, have minimal adverse environmental effects and include a number of municipal maintenance and operational activities. These projects are pre-approved and may proceed to implementation without following the full Class EA planning process.
- Schedule A + Schedule A+ was introduced as part of the 2007 amendments. Schedule A+ projects are pre-approved; however, the public is to be advised prior to project implementation.
- Schedule B projects have the potential for some adverse environmental effects. The municipality is required to undertake a screening process involving mandatory contact with directly affected public and relevant review agencies to ensure that they are aware of the project and that their concerns are addressed. If there are no outstanding concerns, then the municipality may proceed to implementation.
- Schedule C projects have the potential for significant environmental effects and must proceed under the full planning and documentation procedures specified in the Class EA document (Phases One to Four). Schedule 'C' projects require that an Environmental Study Report (ESR) be prepared and submitted for review by the public and review agencies. If there are no outstanding concerns, then the municipality may proceed to implementation.

A listing of road and transit projects identified for the Secondary Plan area is summarized in Table 9 along with the applicable EA Schedule that will govern the extent of further study required to be undertaken prior to implementation.

Table 9EA Requirements – Road and TransitImprovements

			EA
ID#	Project Description	Limits	Schedule
1	Transit Road Extension	Existing Transit Road to Road A	С
2	Transit Road Extension	From Road A to Chesswood Dr	С
3	Road A	From Transit Road to Sheppard Ave	С
4	N-S Road - Build Toronto lands	From Allen Road to Sheppard Ave (including Removal of ramps to Wilson Heights and Transit Road / Allen Road intersection)	С
5	Allen District Road C	Road A to N-S Road - Build Toronto lands	В
6	Allen District Road D	Transit Road Ext. toN-S Road-Build Toronto lands (including intersection improvements to Allen Rd) Transit Road Ext. to N-S Road-Build Toronto	В
7	Allen District Road E	lands	В
8	E-W Road F	Keele Street to CN Rail Line	С
9	E-W Road F	CN Rail Line to Transit Road Extension	С
10	E-W Road F	CN Rail Line Underpass	С
11	National Park Perimeter Road G	E-W Road F (9) to Carl Hall Rd	С
12	National Park Perimeter Road G	Carl Hall Rd to CN Rail Line	С
13	National Park Perimeter Road G	CN Rail Line to Stanley Greene N-S Rd (20)	С
14	National Park Perimeter Road G	Stanley Greene Rd (20) to Keele St	С
15	National Park Perimeter Road G	CN Rail Grade Separation	С
16	National Park Entrance Road H	Carl Hall Rd to E-W Road F	С
17	National Park Entrance Road H	E-W Road (8) to Sheppard Ave	В
18	Carl Hall Road Reconstruction	NP Entrance Rd H to N.P. Perimeter Road G	A+
19	Stanley Greene Rd J	NP Perimeter Rd G to Limit of Park	В
20	Stanley Greene Rd J	Future Extension to Wilson Ave.	C**
21	William Baker Rd K	Keele St to N.P. Entrance Rd H	В
22	William Baker Rd L	E-W Road F to Road K	В
23	William Baker Rd M	Keele St to N.P. Entrance Rd H	С
24	Chesswood District - Road N	Transit Rd Extension to Sheppard Ave W	В
25	Stanley Greene E-W Rd	Keele St to W of CN Rail line	С
26	Allen District Rd U	Allen District Rd B (4) to Wilson Heights Blvd	В
	Keele Street Widening -Centre Turn Lane	Wilson Avenue to Grandravine Drive	С
	National Park Entrance Road	Keele St to Carl Hall Rd	Federal*
	Transit Projects		
	New Transit Circulator Route	Keele St / National Urban Park Perimeter Road	A***
	New Transit Circulator Route	i ransit Road Extension / Allen District / Sheppard Avenue West	A***

Federal* - It is assumed that new roadways within and serving the National Park will fall under the Canadian Environmental Assessment Act and will be subject to the Federal Environmental Assessment Process.

** - Based on the Municipal Class EA, Amended 2007 this project could qualify as a Schedule B undertaking due to the estimated construction value, however, it is recommended that this project proceed as a Schedule C project to ensure that adequate consultation with the community and stakeholders is undertaken to address potential social and cultural heritage impacts
*** - Assumes use of existing lanes on new road to provide normal transit service. If the City / TTC undertakes a widening to provide dedicated transit only lanes, this project would be classified as a Schedule C project.

4.4

Plan Monitoring

A Transportation Master Plan is a 'living' document and must be adaptable to changes in land use development patterns, travel behaviour, and changes in policy direction and other conditions in the City. The success of the TMP as a long-range plan is dependent on a number of variables and ongoing monitoring of relevant conditions, actions, and impacts. The City must be aware of its progress towards its transportation goals and objectives through a monitoring framework that ensures priorities are added, modified or deleted as necessary.

The City has adopted a transportation strategy to attain transportation goals for the Downsview Area Secondary Plan area. As identified in the TMP, a number of transportation capital works projects, TDM strategies, parking management and active transportation policies are required to implement the transportation strategy. Components of the plan are based on relevant provincial and municipal policy documents and guidelines as well as forecasted future travel demands over the transportation network based on future land use development patterns. As growth in population and employment changes over the next several years the City should consider the need to update the TMP to take advantage of or reflect changes beyond the scope of this study. The Plan must be able to respond to changes that might affect demand or the emphasis placed on alternative modes of transportation.

The TMP should be monitored on an annual basis, taking into consideration the following:

- status and progress towards achieving transportation system performance targets
- provincial initiatives, policies and funding related to transportation infrastructure programs;
- population growth and land use changes within the Plan area; and
- the need to re-assess, amend or update components of the TMP.

As part of the Plan monitoring program, the City will:

- Maintain and update the traffic demand forecasting model to assist in the ongoing assessment of transportation conditions, updating this TMP, and in the development of forecasts of travel demands within and to/from the Plan area;
- Schedule regular traffic counts throughout the Plan area at key locations using Cordon Counts and key intersections using Intersection Traffic Counts;
- Review Transportation Tomorrow Survey (TTS) data to provide an update of transportation patterns in the Plan area and beyond to ensure that up to date information is available to assess changing transportation trends;
- Stay abreast of new trends and technologies in traffic operations and management;

- Request information regarding private sector initiatives in implementing TDM measures recommended in the TMP through the use of employer surveys;
- Monitor future opportunities such as changes in land use affecting the potential new corridors recommended in the TMP (i.e. Bombardier Lands and school sites south of the Stanley Green district);
- Examine parking utilization within the Plan area in terms of meeting the parking management policy objectives outlined in Section 3.1;
- Develop an understanding of the Park usage in terms of traffic generation, parking requirements and mode of travel most widely used. This will be monitored for both regular usage and for special events;
- Monitor the achievement of a 50% non-auto mode share target identified for Subway station areas (within 1000m) over the planning horizon;
- Monitor the transit system by considering route and system performance based on criteria such as ridership increases, passengers per capita and traffic volumes;
- Develop key walking and cycling indicators based on the recommended strategies such as:
 - length of on road cycling lanes provided (km)
 - number / length of new cycling / walking links completed by year
 - percentage of major arterial / collector / local roads with walking / cycling facilities on both sides or at least one side of length)
 - percentage of facilities (community centres, transit stops, etc) with bicycle racks
 - percentage of sidewalks that are accessible
- Obtain annual population, employment and dwelling unit data to provide context for an assessment of whether the Plan area is growing at the rate anticipated. This information will in turn be utilized to assess whether the pace of TMP implementation and completion is proportional to the pace of development and may lead to adjustments in density levels as development in the Plan area is built out.

Given the close integration between land use planning, land use policy, and transportation; any updates to the TMP should be undertaken in conjunction with Official Plan updates. All TMP updates should include a proactive and comprehensive public consultation program featuring formal public consultation, stakeholder workshops, and other innovative outreach strategies to solicit input from a wide cross section of the Plan area community.