160

60

Figures 13 and 14 show the bus stop locations and total daily bus stop activity within the TAI for the school route 674.

As shown in Figures 13 and 14, more activity occurs west of March Road, compared to east of March Road as more residential development currently exists west of March Road. Figures 13 and 14 also show an increase in passenger activity along the school route 674 during the PM, as students are more inclined to be dropped off at school by their parents in the morning and rely on public transit to return home.

Figures 15 and 16 show the median number of passengers boarding/alighting the bus at each bus stop location, as well as the median ridership volume of buses travelling to/from the TAI. It should be noted that the median ridership volume is not cumulative; it has been derived from its own set of data.

As shown in Figure 15, the median ridership volume of buses travelling the school route 674 – AM is 30 passengers prior to exiting the TAI. Figure 16 shows that the median ridership volume of buses travelling the school route 674 - PM is 38 passengers prior to entering the TAI.

#### 3.4.4 2013 Existing Total Transit Volumes

Existing total transit volumes were calculated for the AM and PM peak hours by multiplying the aforementioned transit ridership for each transit route by the frequency of buses running during the peak hour. The calculations for the AM and PM peak hours are shown in Table 2.

	Ridership (ppb¹)		Frequency (bph²)				Volume (pph³)			
Transit Route			AM Peak		PM Peak		AM Peak		PM Peak	
rtouto	ln	Out	In	Out	In	Out	ln	Out	ln	Out
60	34	31	0	2	4	0	0	62	136	0
93	12	12	7	3	2	5	84	36	24	60
674	30	38	None <sup>4</sup>	None <sup>4</sup>	None <sup>4</sup>	None <sup>4</sup>	0	0	0	0

**Table 2: Existing Transit Volumes** 

- 1. ppb = Passengers per Bus
- bph = Busses per Hour
   pph = Passengers per H pph = Passengers per Hour
- Travel times of the school route 674 does not coincide with peak hour of traffic within the TAI

As shown in Table 2, during the AM peak hour approximately 84 passengers enter and 98 passengers depart the TAI via transit. Approximately 65% of the outbound passengers in the AM peak hour utilize the express route 60, while the residual use the regular route 93. During the PM peak hour approximately 160 passengers enter and 60 passengers depart the TAI via transit. Approximately 85% of the inbound passengers during the PM peak hour utilize the express route 60, while the residual use the regular route 93.

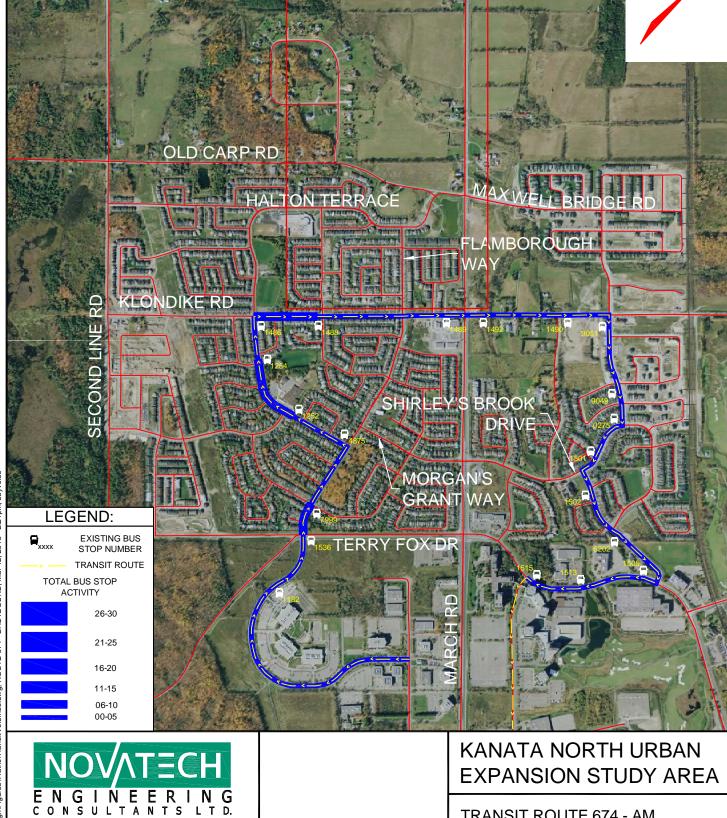
Total

84

98

#### 3.5 **Existing Cycling Network and Volumes**

The City of Ottawa Ottawa Cycling Plan (OCP) identifies the following roadways as Spine or Citywide Cycling Routes:



TRANSIT ROUTE 674 - AM

MAR 2013

TOTAL DAILY BUS STOP ACTIVITY

NTS

112117

FIGURE # 13

M/\2012/112117\CAD\Design\Figures\Traffic\Transit\Olumes.dwg, ROUTE 674 - EASTBOUND, Mar 12, 2013 - 2.21pm, bbyvelds

ENGINEERS & PLANNERS

Suite 200, 240 Michael Cowpland Drive Ottawa, Ontario, Canada K2M IP6

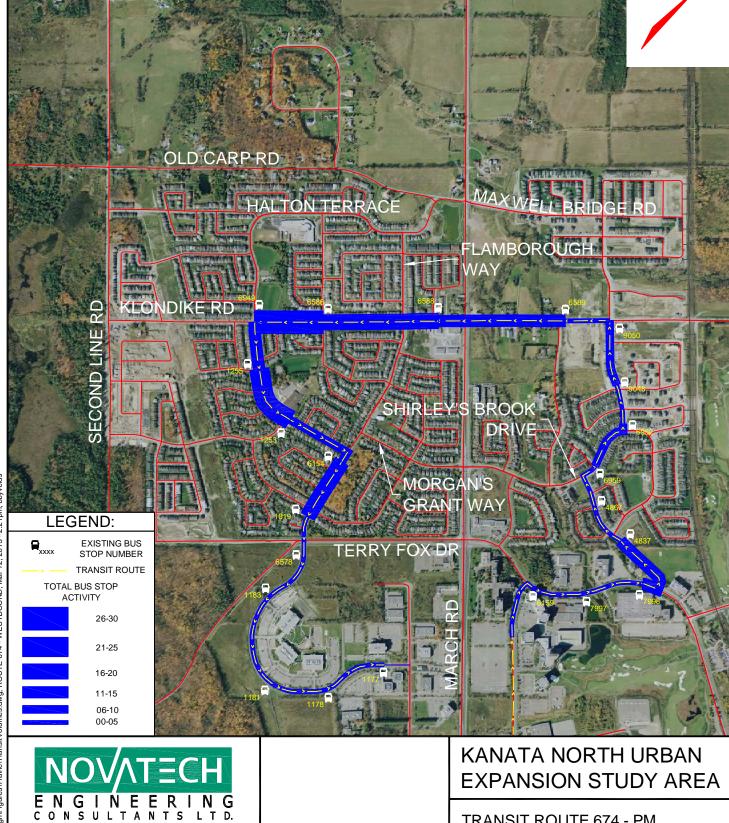
novainfo@novatech-eng.com

(613) 254-9643

(613) 254-5867

Telephone

Facsimile



TRANSIT ROUTE 674 - PM

MAR 2013

TOTAL DAILY BUS STOP ACTIVITY

NTS

112117

FIGURE # 14

M/32012/112117/CAD\Design\Figures\Traffic\Transit\Olumes.dwg, ROUTE 674 - WESTBOUND, Mar 12, 2013 - 2:21pm, bbyvelds

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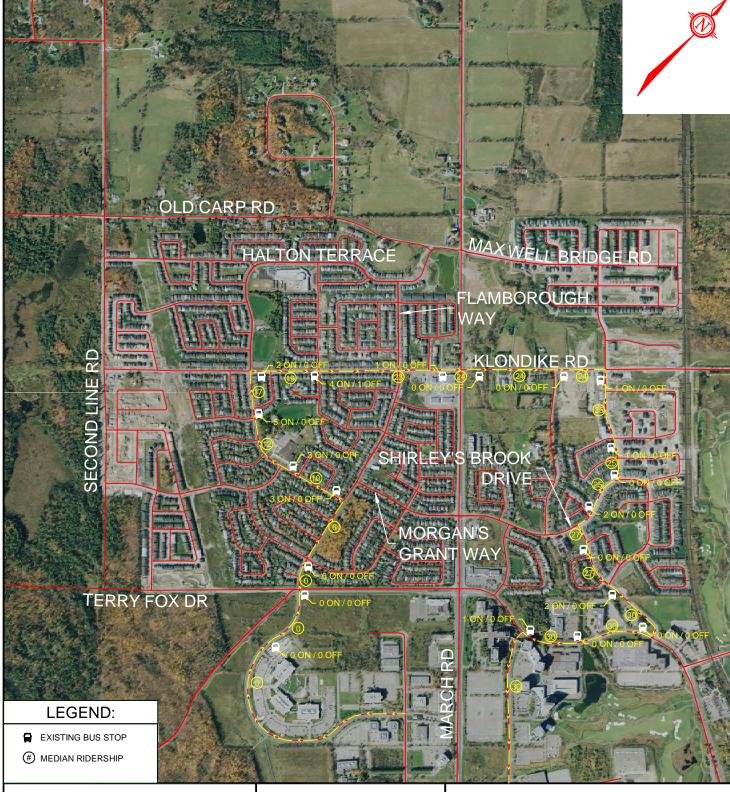
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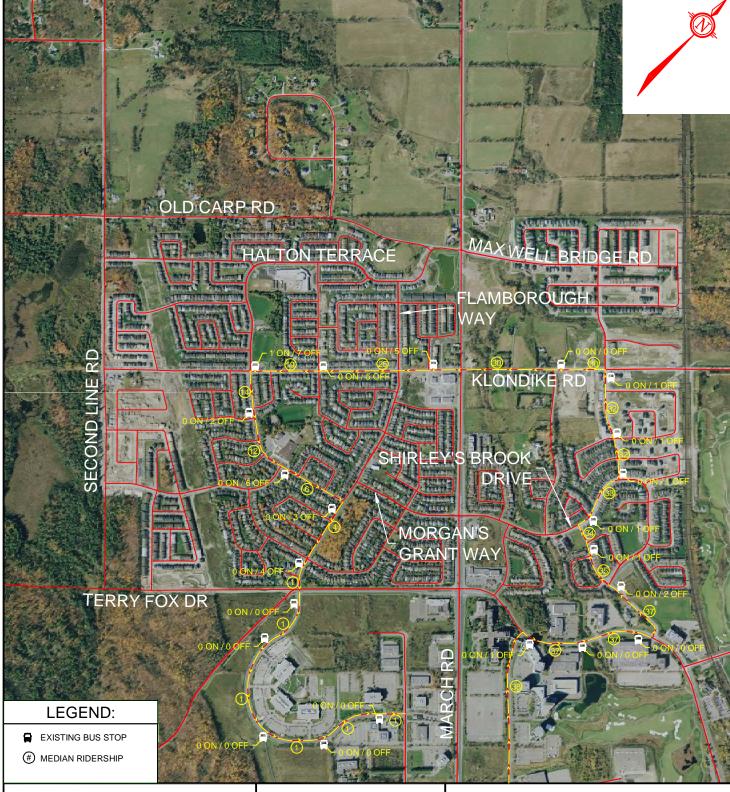
# KANATA NORTH URBAN EXPANSION STUDY AREA

TRANSIT ROUTE 674 - AM MEDIAN PASSENGER BOARDING/ALIGHTING

NTS

MAR 2013 112117

2117 FIGURE # 15



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# KANATA NORTH URBAN EXPANSION STUDY AREA

TRANSIT ROUTE 674 - PM MEDIAN PASSENGER BOARDING/ALIGHTING

SCALE

NTS

MAR 2013

112117 F

FIGURE # 16

- Terry Fox Drive;
- March Road;
- Dunrobin Road;
- Second Line Road (South of Old Carp Road);
- Old Carp Road.

Bicycle lanes are provided along both sides of Terry Fox Drive within the TAI and March Road south of Maxwell Bridge Road. Paved shoulders are provided for cyclists along March Road between Maxwell Bridge Road and Dunrobin Road, and along Dunrobin Road between March Road and Lillian Way. The OCP identifies the following roadways as Community Cycling Routes:

- March Valley Road;
- Morgan's Grant Way;
- Shirley's Brook Drive (west of Helmsdale Drive);
- Klondike Road:
- Halton Terrace;
- Flamborough Way.

The OCP also identifies an off-road cycling route extending between Old Carp Road and Terry Fox Drive within the hydro easement east of Second Line Road as a Community Cycling Route. There are no other cycling facilities provided along any of the identified Community Cycling Routes.

A well developed off-road cycling network exists throughout Kanata, providing a connection to the already established city wide cycling network. Off-road pathways south of Terry Fox Drive, in the vicinity of Second Line Road and Flamborough Way act as a cycling route between the existing Kanata North and Kanata Lakes communities. An off-road cycling route commences in the northeast quadrant of the Terry Fox Drive / Herzberg Road intersection, south of March Valley Road. This off-road cycling route provides cyclists with a connection to cycling trails travelling across the greenbelt. An extensive multi-use pathway network exists within the South March Highlands Conservation Forest, located west of Second Line Road between Terry Fox Drive and Old Carp Road.

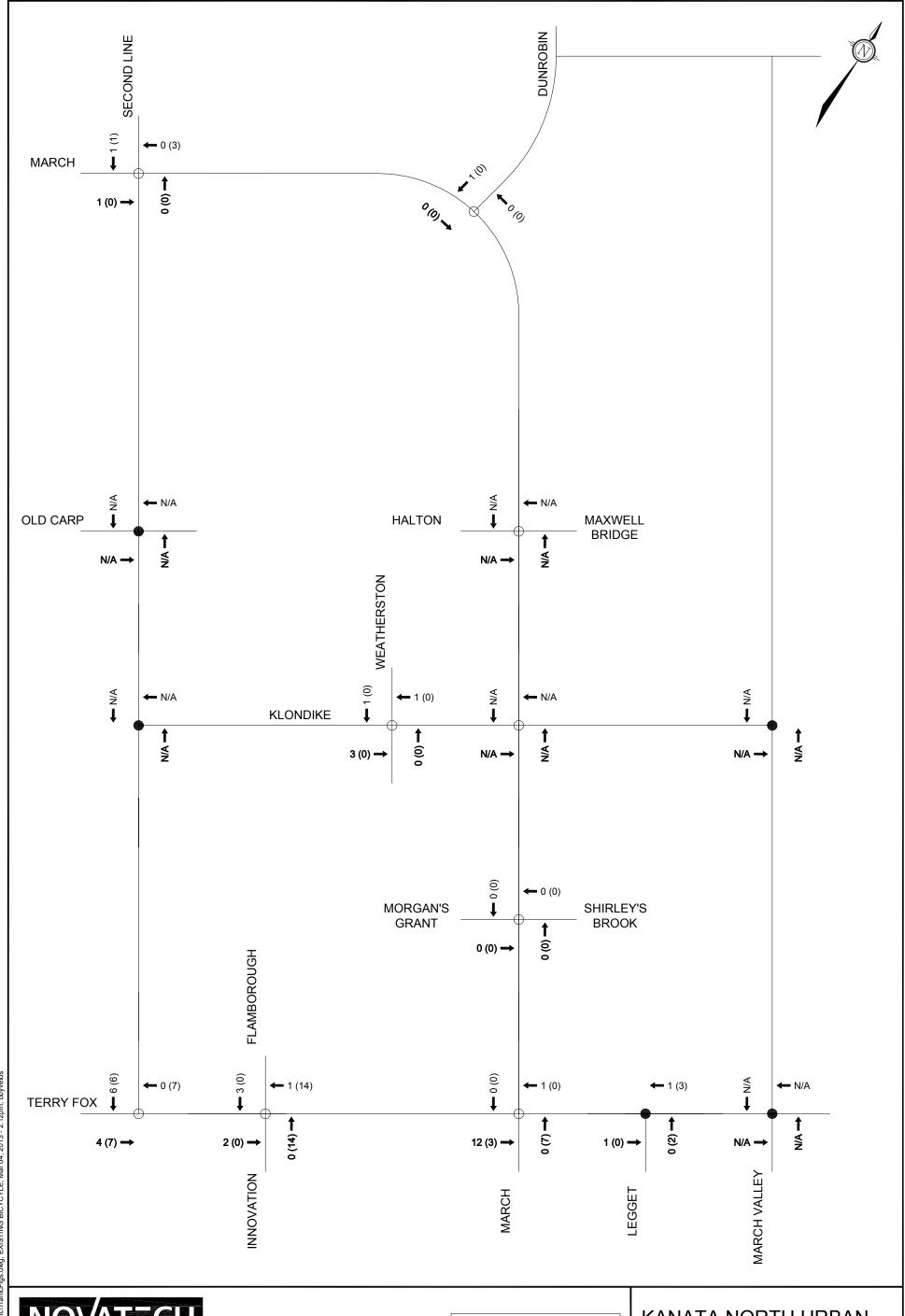
Existing cycling lanes along Terry Fox Drive and March Road form more direct cycling routes for commuters travelling to/from TAI. The cycling lanes along Terry Fox Drive west of Second Line Road provide a more direct cycling route for cyclists commuting to/from the Kanata Centrum shopping centre or the existing Kanata Lakes and Katimavik-Hazeldean communities. The cycling lanes along March Road provide a more direct route for cyclists commuting to/from the Eagleson Park and Ride, which provides a connection to the existing OC Transpo transit network.

**Figure 17** uses the cyclist volumes from the traffic counts outlined in Section 3.2 to show the current AM and PM peak hour cyclist volumes at the study area intersections. The OCP cycling network maps are provided in **Appendix C**.

#### 3.6 Existing Pedestrian Facilities

Existing pedestrian facilities within the TAI are described as follows:

An asphalt sidewalk is provided along the south side of Terry Fox Drive east of March Road. West of March Road a multi-use pathway is provided along the south side of Terry Fox Drive. West of Flamborough Way a concrete sidewalk is developed along the north side of Terry Fox Drive.





Suite 200, 240 Michael Cowpland Drive Ottawa, Ontario, Canada K2M IP6

### LEGEND

Unsignalized IntersectionSignalized Intersection

xx VPH AM Peak Hour
(xx) VPH PM Peak Hour

KANATA NORTH URBAN EXPANSION STUDY AREA

EXISTING BICYCLE VOLUMES

MAR 2013 112117 FIGURE # 17

Sidewalks are provided along both sides of March Road south of Maxwell Bridge Road / Halton Terrace. North of Maxwell Bridge / Halton Terrace paved shoulders are provided along March Road.

A multi-use pathway is provided along the east side of Second Line Road commencing south of Goward Drive and terminating north of Terry Fox Drive.

Sidewalks are provided along both sides of Klondike Road west of March Road. East of March Road, Klondike Road has a rural cross-section with gravel shoulders, with no sidewalk. The section between Sandhill Road and the CNR has an urban cross-section with sidewalks provided along both sides of Klondike Road.

Sidewalks are provided along both sides of Halton Terrace between March Road and Newcastle Avenue. East of Newcastle Avenue, an asphalt sidewalk is developed along the north side of Halton Terrace.

Sidewalks are provided along both sides of Maxwell Bridge Road between March Road and Marconi Avenue. East of Marconi Avenue the sidewalk along the north side of Maxwell Bridge Road is continued.

An asphalt sidewalk is provided along both sides of Shirley's Brook Drive commencing at March Road and terminating at Sandhill Road (north) and Helmsdale Drive (south). East of Helmsdale Drive, a concrete sidewalk is provided along both sides of Shirley's Brook Drive.

Sidewalks are provided along both sides of Flamborough Way between Morgan's Grant Way and Klondike Road. South of Morgan's Grant Way, an asphalt sidewalk is provided along the east side of Flamborough Way. A concrete sidewalk is provided along the west side of Flamborough Way between Terry Fox Drive and Ipswich Terrace.

A concrete sidewalk is provided along one side of Morgan's Grant Way and Weatherston Street.

No pedestrian facilities are provided along March Valley Road, Old Carp Road and Dunrobin Road.

There are several off-road pedestrian pathways connecting various residential streets to the surrounding collector and arterial roadways throughout Kanata North. The City of Ottawa Pedestrian Master Plan Network for Kanata / Stittsville is provided in **Appendix D** of this report.

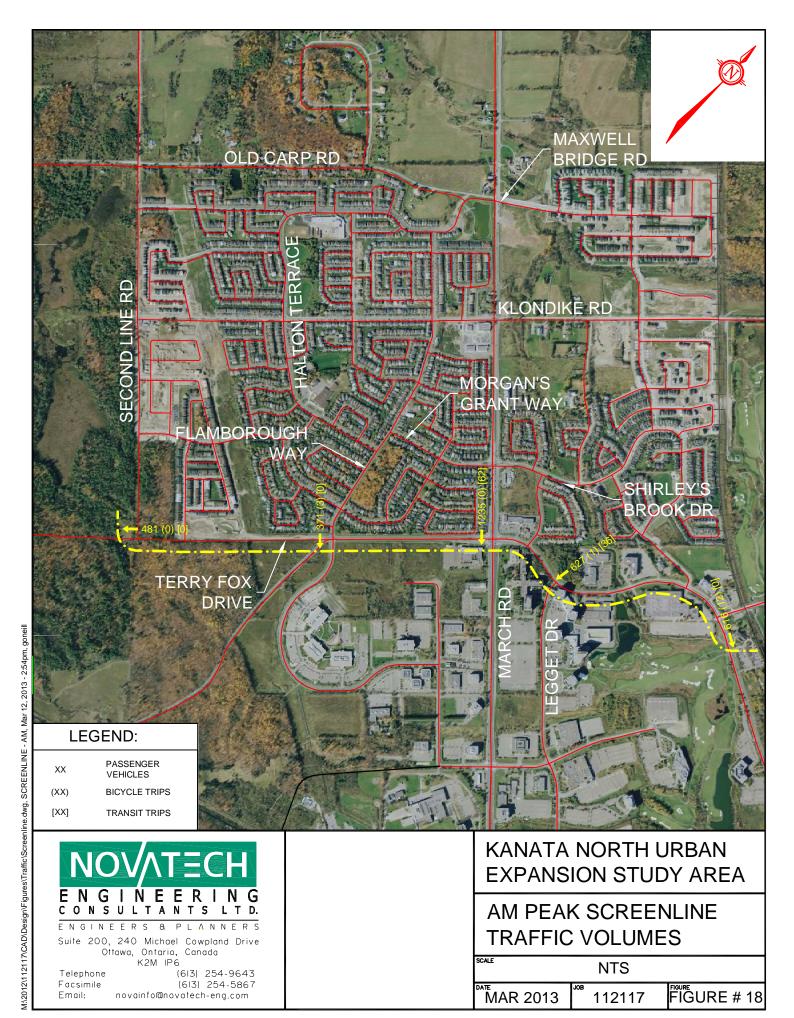
Crosswalks with depressed curbs and push buttons are provided on all arms of the signalized intersections within the TAI.

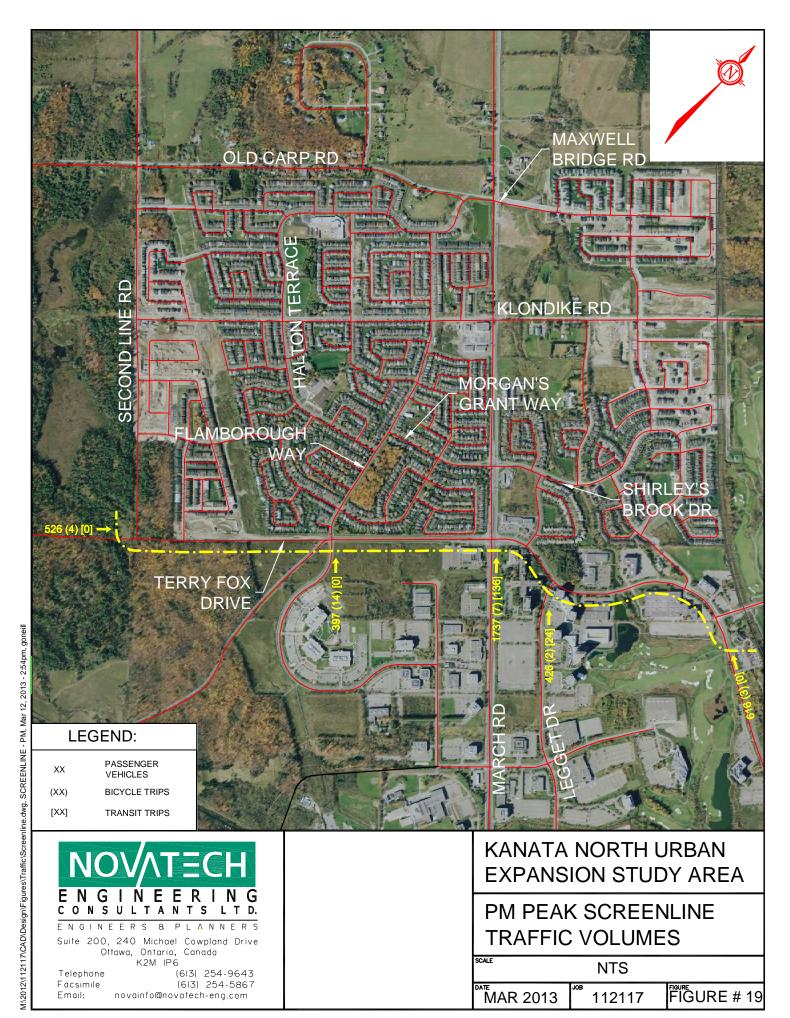
#### 3.7 Screenline Analysis

A screenline is defined as an imaginary finite line that is crossed by a given number of traffic corridors, which is used to determine the existing traffic operating conditions and network capacity deficiencies at a macroscopic level. A strategic screenline has been developed within the TAI to analyse the existing directional peak hour traffic volumes. The foregoing screenline is described as the TAI screenline.

**Figures 18 and 19** show the location of the TAI screenline along with the traffic, transit and bicycle volumes crossing the screenline during the AM and PM peak hours. The TAI screenline is described as follows:

The screenline is located immediately south of the TAI.





- The screenline extends along Terry Fox Drive from west of Second Line Road to east of March Valley Road.
- Traffic, transit, and cyclist volumes crossing the screenline are captured at Terry Fox Drive (west of Second Line Road), Innovation Drive, March Road, Legget Drive and Terry Fox Drive (east of March Valley Road).

The existing screenline network elements and directional capacities are shown in Table 3.

Table 3: Network Elements and Directional Capacities (PCU's) at the TAI Screenline

Roadway	# Lanes	Assumed Capacity
Terry Fox Drive (west of Second Line Road)	1	900
Innovation Drive	1	900
March Road	3	2700
Legget Drive	1	900
Terry Fox Drive (east of March Valley Road)	1	900
Total	7	6300

Traffic count information outlined in Section 3.2 was used to estimate the existing peak hour levels of service available over the full length of the TAI screenline. Commercial vehicle volumes at the screenline were accounted for by the application of a 1.16 commercial vehicle factor (5% heavy goods, 6% light goods) to the peak directional traffic volumes. Outside of the urban core, the current City of Ottawa screenline operational standard is LOS 'D' ( $v/c \le 0.90$ ). **Table 4** shows the LOS currently available at the TAI screenline during the AM and PM peak hours.

Table 4: Existing TAI Screenline Performance, AM and PM Peak Hours

Roadway	Current Directional Capacity	Peak Directional Traffic Volumes		Peak Directional PCU's		Current Volume / Capacity (v/c) Ratios and Levels of Service (LOS)			Current Directional Capacity	Deficiencies		
	(PCU's)	AM Peak	PM Peak	AM Peak	PM Peak	AM I	Peak LOS	PM v/c	Peak LOS	@ LOS 'D'	AM Peak	PM Peak
Terry Fox Drive (west of Second Line)	900	481	508	558	589	0.62	В	0.65	В	810	None	None
Innovation Drive	900	371	384	430	445	0.48	Α	0.49	Α	810	None	None
March Road	2700	1235	1679	1433	1947	0.53	Α	0.72	С	2430	None	None
Legget Drive	900	627	426	727	494	0.81	D	0.55	Α	810	None	None
Terry Fox Drive (east of March Valley)	900	616	593	715	688	0.79	С	0.76	С	630	None	None
Overall	6300	3330	3590	3863	4163	0.62	В	0.66	В	5490	None	None

As shown in Table 4, the TAI screenline is operating below capacity during the AM and PM peak hours. The TAI screenline is currently operating at a LOS 'B' during the AM and PM peak hour, with overall v/c ratios of 0.62 and 0.66 respectively.

**Table 5** uses the vehicle, transit, bicycle and pedestrian volumes outlined in Section 3.2-3.6 to show the modal shares at the TAI screenline in the peak direction of travel. Auto passenger volumes at the screenline were accounted for by the application of a 1.2 private vehicle occupancy rate to the peak hour directional traffic volumes.

**Table 5: Existing Screenline Modal Shares (Person Trips)** 

Mode	AM Pea	ak Hour	PM Peak Hour		
Auto Driver	2613 80%		3164	79%	
Auto Passenger	523	16%	633	16%	
Public Transit	98	3%	160	4%	
Bicycle	16	0.5%	30	0.8%	
Pedestrian	9	0.5%	15	0.2%	
Total	3258	100%	4000	100%	

As the TAI is located along the northern boundary of the Kanata / Stittsville region; the existing screenline modal shares presented in Table 5 for the AM and PM peak hours were compared with the modal shares observed in the 2005 Trans O-D Survey Report for the Kanata / Stittsville region.

The transit modal shares crossing the TAI screenline during the AM and PM peak hours are significantly lower than the observed transit modal shares presented in the 2011 Trans O-D Survey Report for the Kanata / Stittsville region. Since the rapid transit stations within the Kanata / Stittsville region are centralized along Highway 417, transit accessibility and usage is greater south of the TAI. The modal shares observed in the 2011 Trans O-D Survey Report for the Kanata / Stittsville region are not representative of the modal shares observed within the TAI.

The existing screenline modal shares presented in Table 5 for the AM and PM peak hours do not reflect the modal shares observed in the Kanata / Stittsville region, mainly due to the lower usage of transit observed within the TAI. It is noteworthy that the observed modal shares within the TAI are much closer to those reported for the Rural West region located immediately north of the TAI. It is possible that the reduced transit usage within the TAI during peak hours is due to the lack of a bus rapid transit hub in this area (such as the Eagleson Park and Ride facility).

During the AM peak hour approximately 14% of the trips exiting the Rural West region utilize other travel modes. Since the other travel modes within the rural west region are unavailable in the Kanata / Stittsville region, it is assumed that the other travel modes would become auto drivers. Based on the foregoing, the existing screenline modal shares during the AM and PM peak hours are consistent with the observed modal shares within the Rural West region.

Excerpts from the 2011 Trans O-D Survey Report for the Kanata / Stittsville and Rural West regions are provided in **Appendix E**.

#### 3.8 Collision Analysis

Historical collision data from the last three years was obtained from the City's Public Works and Service Department for all study area intersections and roadways. Copies of the collision summary reports are included in **Appendix F**.

The data has been evaluated to determine if there are any identifiable collision patterns. The Ottawa *TIA Guidelines* define a collision pattern as more than one collision at a roadway location that involves similar directions and impact types. Further analysis may be warranted for intersections with a pattern of six or more collisions for any one movement or a total of 33 or more collisions, over a three-year period.

The following table provides a summary of the number of collisions reported at each study area intersection and roadway between January 1<sup>st</sup>, 2009 and January 1<sup>st</sup>, 2012.

Table 6: Vehicle Collisions (2009-2012)

Intersection	Number of Reported Collisions (Jan 2009 to Jan. 2012)
March Road / Second Line Road	3
March Road / Dunrobin Road	5
March Road / Maxwell Bridge Road	5
March Road / Klondike Road	14
March Road / Morgan's Grant Way	21
March Road / Terry Fox Drive	37
Terry Fox Drive / Second Line Road	1
Terry Fox Drive / Flamborough Way	0
Terry Fox Drive / March Valley Road	0
Klondike Road / Second Line Road	1
Klondike Road / Weatherston Street	0
Klondike Road / March Valley Road	0
Second Line Road / Old Carp Road	0
Street Segment	
March Road, Second Line Road to Dunrobin Road	9
March Road, Dunrobin Road to Maxwell Bridge Road	26
March Road, Maxwell Bridge Road to Klondike Road	4
March Road, Klondike Road to Shirley's Brook Drive	8
March Road, Shirley's Brook Drive to Terry Fox Drive	4
Terry Fox Drive, Flamborough Way to March Road	3
Terry Fox Drive, March Road to March Valley Road	7
Second Line Road, March Road to Old Carp Road	7
Second Line Road, Old Carp Road to Klondike	2
March Valley Road, Riddell Drive to Klondike Road	1
March Valley Road, Klondike Road to Terry Fox Drive	3

Old Carp Road, Second Line Road to Halton Terrace	2
Klondike Road, Second Line Road to March Road	6
Klondike Road, March Road to March Valley Road	4

#### 3.8.1 March Road / Klondike Road

A total of fourteen collisions occurred at the March Road / Klondike Road intersection within the last three years. Eight of the fourteen collisions recorded were angle impacts, three were rear-end impacts, two were turning impacts, and one was a sideswipe impact. Four of the collisions occurred during inclement weather and/or suboptimal roadway conditions.

Five of the collisions caused personal injury, but no fatalities. None of the collisions involved pedestrians or cyclists.

Four of the eight angle impact collisions involved an east-west and a north-south travelling vehicle going ahead through the intersection. Two of the eight angle impact collisions involved a northbound travelling vehicle and a westbound vehicle turning right.

Two of the three rear-end impacts involved two northbound vehicles. None of the rear-end collisions resulted in personal injuries, suggesting that the impacts were mainly at lower speeds.

#### 3.8.2 March Road / Morgan's Grant Way

A total of twenty-one collisions occurred at the March Road / Morgan's Grant Way intersection within the last three years. Eight of the twenty-one collisions recorded were turning impacts, five were rear-end impacts, four were angle impacts, two were sideswipe impacts, and two were single vehicle impacts.

Six of the collisions caused personal injury, with one fatality. The collision that resulted in a fatality was a turning impact, which involved a southbound vehicle turning left and a northbound dumptruck going ahead. This collision occurred during the hours of dusk under unfavourable roadway conditions, suggesting that environmental factors may have had a significant influence on the collision. One of the collisions involved a pedestrian and one involved a cyclist, both resulting in non-fatal injuries.

Half of the turning collisions occurred during suboptimal roadway conditions and/or during the hours of darkness or dusk. Seven of the eight turning impacts involved a northbound and southbound travelling vehicle, six of which involved the southbound vehicle turning left and the northbound vehicle going ahead.

Four of the five rear-end collisions involved two eastbound travelling vehicles turning right onto March Road. Only one of the rear-end impacts resulted in personal injuries, suggesting that the impacts were mainly at lower speeds.

All of the angle impacts occurred during the hours of daylight under optimal roadway conditions, suggesting that environmental factors did not have a significant influence on the angle collisions recorded. It should be noted that one of the angle impacts involved an eastbound right turning vehicle and a southbound cyclist, resulting in non-fatal injuries.

Both sideswipe collisions involved two westbound vehicles during the hours of daylight under optimal roadway conditions. Both sideswipe impacts did not result in personal injuries.

One of the single vehicle collisions involved an eastbound travelling vehicle turning left and a pedestrian. This collision occurred during the daylight hours, inclement weather and suboptimal roadway conditions, suggesting that the environmental factors may have had an influence on the collision.

#### 3.8.3 March Road / Terry Fox Drive

A total of thirty-seven collisions occurred at the March Road / Terry Fox Drive intersection within the last three years. Seventeen of the thirty-seven collisions recorded were turning impacts, eight were rear-end impacts, five were angle impacts, five were single vehicle impacts, one was a sideswipe collision and one was an other impact type.

Thirteen of the collisions resulted in personal injury, but no fatalities. None of the collisions involved pedestrians or cyclists.

Half of the thirty-seven collisions occurred during inclement weather, suboptimal roadway conditions and/or in the hour of dark or dusk. This suggests that environmental factors may have had significant influence on the recent collision history at this intersection.

All turning impacts involved a northbound or southbound vehicle turning left onto Terry Fox Drive. Four of the turning collisions involved more than two vehicles.

Five of the eight rear-end collisions involved two northbound travelling vehicles, one of which involved two vehicles making a right turn. Seven of the rear-end collisions did not result in personal injury, suggesting that the impacts were mainly at lower speeds.

All of the angle impacts occurred during optimal roadway conditions, suggesting that environmental factors did not have significant influence on the collisions. It should be noted that one of the angle collisions involved a police vehicle.

One of the single vehicle collisions resulted in non-fatal injuries. Four of the five single vehicle collisions occurred during the hours of dark or dusk and suboptimal roadway conditions. It should be noted that one of the single vehicle collisions involved a wild animal.

It should be noted that the other impact did not result in personal injury, and occurred during the hour of darkness under suboptimal roadway conditions. The collision involved a northbound truck and trailer skidding into a westbound stopped vehicle.

#### 3.8.4 March Road, Dunrobin Road to Maxwell Bridge Road / Halton Terrace

A total of twenty-six collisions occurred along March Road, between Dunrobin Road and Maxwell Bridge Road / Halton Terrace within the last three years. Sixteen of the twenty-six collisions recorded were single vehicle impacts, five were rear-end impacts, two were angle impacts, two were other impacts and one was a turning impact.

Six of the twenty-six collisions resulted in personal injury, but no fatalities. None of the collisions involved pedestrians or cyclists.

Nineteen of the twenty-six collisions occurred during suboptimal roadway conditions and/or during the hours of dark, dawn or dusk, suggesting that environmental factors may have had significant influence on the collisions.

Thirteen of the sixteen single vehicle collisions involved a vehicle and a wild animal along March Road, eleven of which occurred during the hours of dark or dusk. It should be noted that one of the single vehicle collisions occurred due to debris falling off a truck.

Four of the five rear-end collisions resulted in non-fatal injuries, suggesting that the impacts were at higher speeds. It should be noted that three of the rear-end collisions involved more than two vehicles. One of the angle collisions involved a westbound school bus turning right onto March Road from Maxwell Road.

It should be noted that the two other impact types either occurred during the hours of darkness or under suboptimal roadway conditions. One of the other impacts involved two vehicles and a wild animal. The only turning impact involved a southbound vehicle performing a U-turn near Murphy Court.

#### 4.0 PLANNED NETWORK CHANGES

#### 4.1 City of Ottawa Transportation Master Plan

The City of Ottawa's *Transportation Master Plan* (TMP) was approved by City Council in November 2008.

The City of Ottawa's TMP identifies the transportation facilities and services the City intends to implement by 2031 to meet the travel needs of residents and businesses, and to support the development pattern outlined in the City of Ottawa Official Plan (OP).

The following will outline the transportation policies and projects that will be relevant to the provision of adequate transportation services to the urban development within the Kanata North Urban Expansion Study Area and which will be reflected in the forthcoming Community Design Plan.

#### 4.1.1 Relevant Rapid Transit Policy

The successful implementation of an expanded rapid transit network will be a critical aspect in the achievement of the City of Ottawa's transit objectives. The expansion of the rapid transit network to more parts of the city will significantly increase the ease of mobility and attractiveness of transit use for residents. As such, "the City will:

- 1. Implement a seamless network of rapid transit corridors, including the downtown tunnel and incremental extensions to urban centres outside the Greenbelt, as shown on Map 4a (TMP)
- 2. Protect the opportunity to fully grade-separate all elements of the rapid transit system, as and when required, within or beyond the planning horizon.
- 3. Defer the costs of grade-separating rapid transit elements by introducing priority measures that reduce delay and improve reliability, and by incrementally introducing further enhancements to isolate transit from mixed traffic.
- 4. Implement rapid transit corridors in urban centres outside the Greenbelt in a manner that permits interim uses at early stages of development, while ensuring the earliest possible provision of high-quality transit service and the future potential to incrementally introduce grade-separated transit facilities."

2008 City of Ottawa Transportation Master Plan

The City plans to service the West Urban Community (Kanata) through the implementation of two rapid transit corridors outlined in the TMP. The Transportation Master Plan Ultimate Rapid Transit

Network – Map 4b is provided in **Appendix G** of this report. The two rapid transit corridors outline in the TMP are described as follows:

**Table 7: 2008 TMP Rapid Transit Network** 

Project	Description	Environmental Assessment
West Transitway  West Transitway  A Bus Rapid Transit (BRT) between the Southwest  Transitway (Highway 417) and Fernbank Road to provide fast, reliable service to/from downtown for Kanata, Stittsville and Bayshore area residents		Completed
Kanata North Transitway	A Bus Rapid Transit (BRT) between the West Transitway at the Highway 417 and the vicinity of Old Carp Road provides high quality transit access to major employment areas in Kanata North along March Road	Not Complete

Although the Environmental Assessment of the Kanata North Transitway has not been completed, the proposed Kanata North Urban Expansion Study Area CDP will address the possible extension of the rapid transit network north of Old Carp Road to the proposed expanded City of Ottawa urban boundary.

#### 4.1.2 TMP Road Network Capital Works Plan

The TMP outlines a Capital Works Plan which identifies the implementation phasing of the required infrastructure projects in a manner that will provide desired transportation service levels to the growing regions within the City.

The arterial road phasing identified in the TMP for roads within the western region, of relevance to the development of the Kanata North Urban Expansion Community Design Plan are shown in **Table 8**.

**Table 8: 2008 TMP Arterial Road Program** 

Phase	Project	Description
	Goulbourn Forced	Re-aligned and new two lane road from Terry Fox Drive to
Phase 1	Road re-alignment	Kanata Avenue
(2009 – 2015)	March Road	Widen from two to four lanes from Morgan's Grant Way to Old Carp Road
2013)	Terry Fox Drive	New two-lane road from Innovation Road / Flamborough Way to south of Richardson Side Road
Phase 2	Kanata West North- South Arterial	New two-lane road from Hazeldean Road Fernbank Road
(2016 – 2022)	Terry Fox Drive	Widen from two to four lanes from Winchester Drive to Eagleson Road at Hope Side Road
	Kanata West North-	Widen from two to four lanes from Palladium Drive to
	South Arterial	Fernbank Road
Phase 3	March Road	Widen from two to four lanes from Old Carp Road to
(2023 – 2031)	Waterritoad	Dunrobin
		Widen from two to four lanes from March Road to south of
	Terry Fox Drive	Richardson Side Road and widen from four to six lanes
		from Campeau Drive to Palladium Drive

#### 4.2 City of Ottawa Ottawa Cycling Plan

The Ottawa Cycling Plan (OCP) was approved by City Council in March 2005.

The OCP is intended to guide the City of Ottawa over the next 20 years in the implementation of a comprehensive on and off-road cycling network. It should be noted that the primary goals of the OCP build upon the goals set out in the City's approved TMP and OP. "The OCP goals are to:

- 1. Build upon existing cycling initiatives by linking, connecting and expanding existing cycling facilities in the City to establish a complete, integrated and readily accessible city-wide network serving both urban and rural Ottawa;
- 2. Make cycling safer for cyclists of all skill and age levels by providing designated on and offroad cycling facilities, while promoting cycling as an active, healthy lifestyle and also educating cyclists and motorists on safe operating practices;
- 3. Increase the cycling modal share from 1.7% (2001) to 3% in 20 years, as set out in Ottawa's 20/20 TMP and OP (2003); and
- 4. Achieve these goals and the vision for cycling in Ottawa in 20 years." City of Ottawa Ottawa Cycling Plan

Cycling facilities and projects that will be relevant to the provision of adequate cycling services to the urban development within the Kanata North Urban Expansion Study Area and which will be reflected in the forthcoming Community Design Plan are outlined in the OCP as follows:

Table 9: 2005 OCP Bicycle Facilities

Bicycle Facility	Description
Bicycle Lanes	Second Line Road – between Old Carp Road and Terry
Bioyele Laries	Fox Drive
Paved Shoulders	Dunrobin Road – north of Lillian Way
Faved Stibulders	March Road – west of Dunrobin Road
	Klondike Road
	Halton Terrace – between Klondike Road and
	Flamborough Way
	Flamborough Way – between Klondike Road and Terry
	Fox Drive
Shared Use Lanes – Signed Route	Morgan's Grant Way
	Shirley's Brook Drive – between March Road and
	Helmsdale Drive
	Helmsdale Drive
	Old Carp Road
	March Valley Road

The City plans to service the Kanata North Urban Expansion Study Area through the implementation of the aforementioned cycling facilities. The Ottawa Cycling Network Facility Types are provided in **Appendix C** of this report.

#### 4.3 City of Ottawa Ottawa Pedestrian Plan

The Ottawa Pedestrian Plan (OPP) was approved by City Council in January 2009.

The OPP identifies and recommends changes in infrastructure, policies and programs that will encourage more people to walk more often. The OPP is a 20 year plan to develop, strengthen and support a pedestrian culture throughout the City of Ottawa. "The primary goals of the Ottawa Pedestrian Plan are:

- 1. Increase the pedestrian modal share across the City;
- 2. Assist in guiding future city development in such a way that encourages the creation of a high quality pedestrian environment;
- 3. Develop and strengthen the "culture of walking" in Ottawa.

City of Ottawa Ottawa Pedestrian Plan

Pedestrian facilities and projects that will be relevant to the provision of adequate pedestrian services to the urban development within the Kanata North Urban Expansion Study Area and which will be reflected in the forthcoming Community Design Plan are outlined in the OPP as follows:

**Table 10: 2009 OPP Pedestrian Facilities** 

Pedestrian Facility	Description
	Along the north side of Terry Fox Drive, between Flamborough Way / Innovation Drive and March Road
Concrete Sidewalk	Along the north side of Terry Fox Drive, between McKinley Drive and Helmsdale Drive
	Along the south side of Klondike Road, between March Road and Sandhill Road
Off Dead Deller	The existing north-south aligned pathway commencing south of the Sandhill Road / Shirley's Brook Drive intersection is proposed to be extended south to connect with Terry Fox Drive
Off-Road Pathway	The existing north-south aligned pathway between Inverary Drive and Sandhill Drive is proposed to be extended north to connect with Klondike Road

The City plans to service the Kanata North Urban Expansion Study Area through the implementation of the aforementioned pedestrian facilities. The City of Ottawa Pedestrian Master Plan Network for Kanata / Stittsville is provided in **Appendix D** of this report.