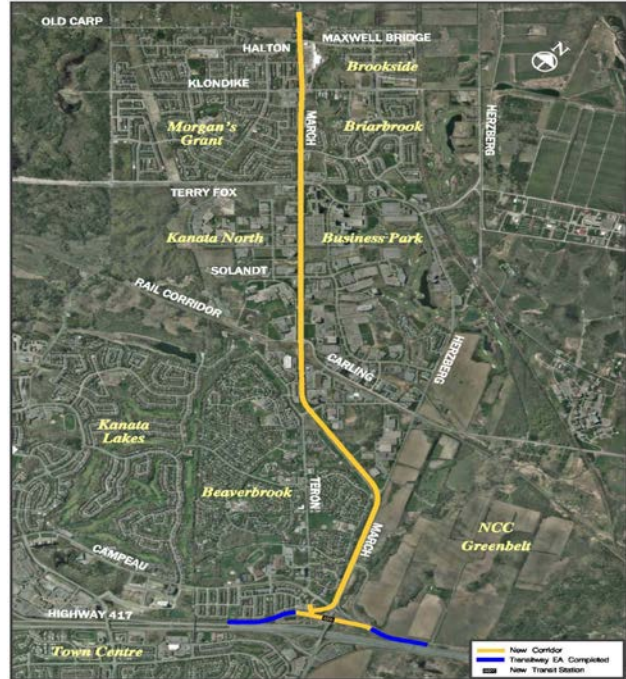


Executive Summary

Background

Transportation system improvements are crucial to accommodating the City's population growth and the associated increases in travel demand. Consequently, a Rapid Transit Network was developed, and approved by Council in 2008, which includes new Light Rapid Transit (LRT) lines and a number of extensions and additions to the existing Bus Rapid Transit (BRT) Transitway system.

This Environmental Project Report (EPR) is for the Kanata North Transitway (KNT) - Highway 417/March-Eagleson Interchange to North of Maxwell Bridge Road. The KNT traverses north along March Road from Highway 417/March-Eagleson Road to north of Maxwell Bridge Road and provides a connection to West Transitway near March-Eagleson interchange.



Project Need

The KNT is being undertaken as a component of the City of Ottawa Official Plan (OP) and Transportation Master Plan (TMP) policies. The OP for the City of Ottawa outlines the challenges of growth over the next 20 years by pursuing strategic directions in four key areas: managing growth, providing infrastructure, maintaining environmental integrity and creating livable communities.

The TMP noted that population and employment for the West Urban Centre are expected to grow about 73,800 (28%) and 33,400 (18%) respectively by 2031, which will place additional demand on existing transportation infrastructure in the area. The Kanata North segment is part of the Council-approved rapid transit network in the 2008 TMP. The new Transitway facility will:

- Respond to growth pressures by providing improved transportation in the study area;
- Increase person carrying capacity of the corridor;
- Contribute to keeping Ottawa a livable and economically viable city by providing a valuable transportation facility and achieving land use, environmental, and social objectives; and
- Expand the City's rapid transit network to accommodate existing and future travel demand in Kanata North and to key regional centres.

The KNT offers opportunities for compact, mixed-use development in the vicinity of stations. Defining and protecting the Transitway corridor and station locations allows for transit-oriented development in the appropriate forms at the right locations. Furthermore, an efficient, reliable and safe transit system will encourage greater transit use, particularly in Mixed-Use Centres and Employment Areas.

Evaluation of Alternative Alignments

Corridor options were developed based on City and National Capital Commission (NCC) policy directives, which included the following:

- Utilize existing transportation or utility corridors to preserve natural features and provide services efficiently (Ottawa Official Plan);
- Develop an interconnected system of rapid transit corridors (Ottawa TMP); and
- Bundle infrastructure within the Greenbelt to protect the integrity of the Greenbelt (NCC).

Six (6) alternative alignment options were identified from the Eagleson/Highway 417 interchange to the urban boundary. Their evaluation was based on a number of factors including:

- Compatibility with Existing and Future Road System
- Ridership and Transit Operations
- Geometrics
- Compatibility with Existing and Future Communities
- Effects on Noise, Air Quality and Vibration
- Soil and Groundwater Considerations
- Effects on Natural Features
- Constructability
- Capital Cost
- Land Acquisition Requirements

Alternative Corridor Options



March Road (Alternative 2) is deemed to be the best transit corridor for a number of reasons. It is an existing transportation corridor that is centrally located to residential and commercial areas, thus providing the best ridership catchment area. It also

has potential for good connectivity for pedestrians and cyclists, supports transit-oriented development opportunities, and offers the most direct route with limited land acquisition requirements. Public feedback generally supports this corridor.

Alternative 6 is similar to Alternative 2 for the section north of Teron Road (thus offering similar opportunities in that segment). However, for the segment directly on Teron Road, it had more negative effects on the adjacent residential community, thereby making it less desirable in comparison to the March Road corridor.

Two design options were assessed for transit operations along the March Road Corridor which includes Median, and Shoulder/curb-side Transit Lanes. The options are similar in many respects, however, the March Road Median option is recommended as it:

- Provides reliability and the highest quality transit service;
- Provides the best multimodal and TOD opportunities; and
- Results in minimal impacts on utilities and existing communities.

Recommended Alignment

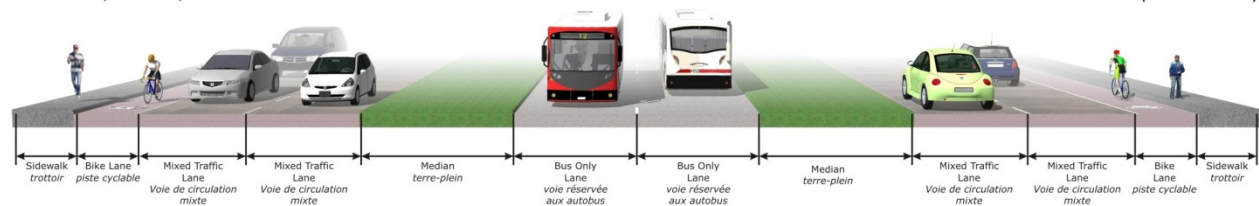
Option 2, as the recommended alignment will focus development along March Road in the centre of the developed residential and commercial area. This alignment provides the best catchment potential with good connectivity to pedestrian, cycling and transit networks. Option 2 provides good transit-oriented development (TOD) opportunities and uses and exiting transportation corridor. Option 2, March Road, provides the shortest most direct route, and limited land acquisition costs.

Option 6 offers similar opportunities to Option 2 north of Teron, but the negative social impacts on the residential community and the pressure to redevelop the area to support the Bus Rapid Transit (BRT) facility make it inferior to Option 2 overall.

Transit Operation within the Corridor

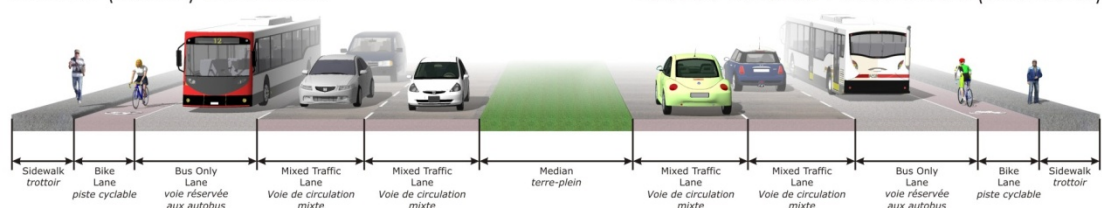
Two alternatives were assessed for transit operations with the March Road Corridor.

Median (Interior) Transit Lanes



Voies de transit médianes (Intérieures)

Shoulder (Exterior) Transit Lanes



Voies de transit sur l'accotement (extérieures)

The options are similar in many respects, however the median option was selected as the preferred alternative as it:

- Provides the highest quality transit service;

- Provides the best multimodal and Transit-Oriented Development (TOD) opportunities; and
- Results in the least impact on utilities and existing communities.

For the median option, eastbound right-turning buses at March/Terry Fox require a median break on March Road to access the median transit lanes, with yield priority given to buses merging into the dedicated facility. This median break should be located approximately midway between the March/Terry Fox and March/Solandt intersections such that buses have sufficient time to accelerate up to speed, and merge into and across two general purpose traffic lanes before merging into the dedicated median transit facility.

HWY 417/Eagleson Connection Alternatives

This EPR includes this connection in a manner that incorporated new and updated information in order to complete the connections in the interim and final stages of the development of the West Transitway including connections and expansion of Park and Ride facilities. Several options were developed for this connection.

This study included an examination of the Kanata North Transitway connection to the West Transitway (Moodie to March and March to Terry Fox), which entails the development of a station near the Highway 417/March-Eagleson interchange area. The study examined connection solutions for the interim and final stages of development of the West Transitway.

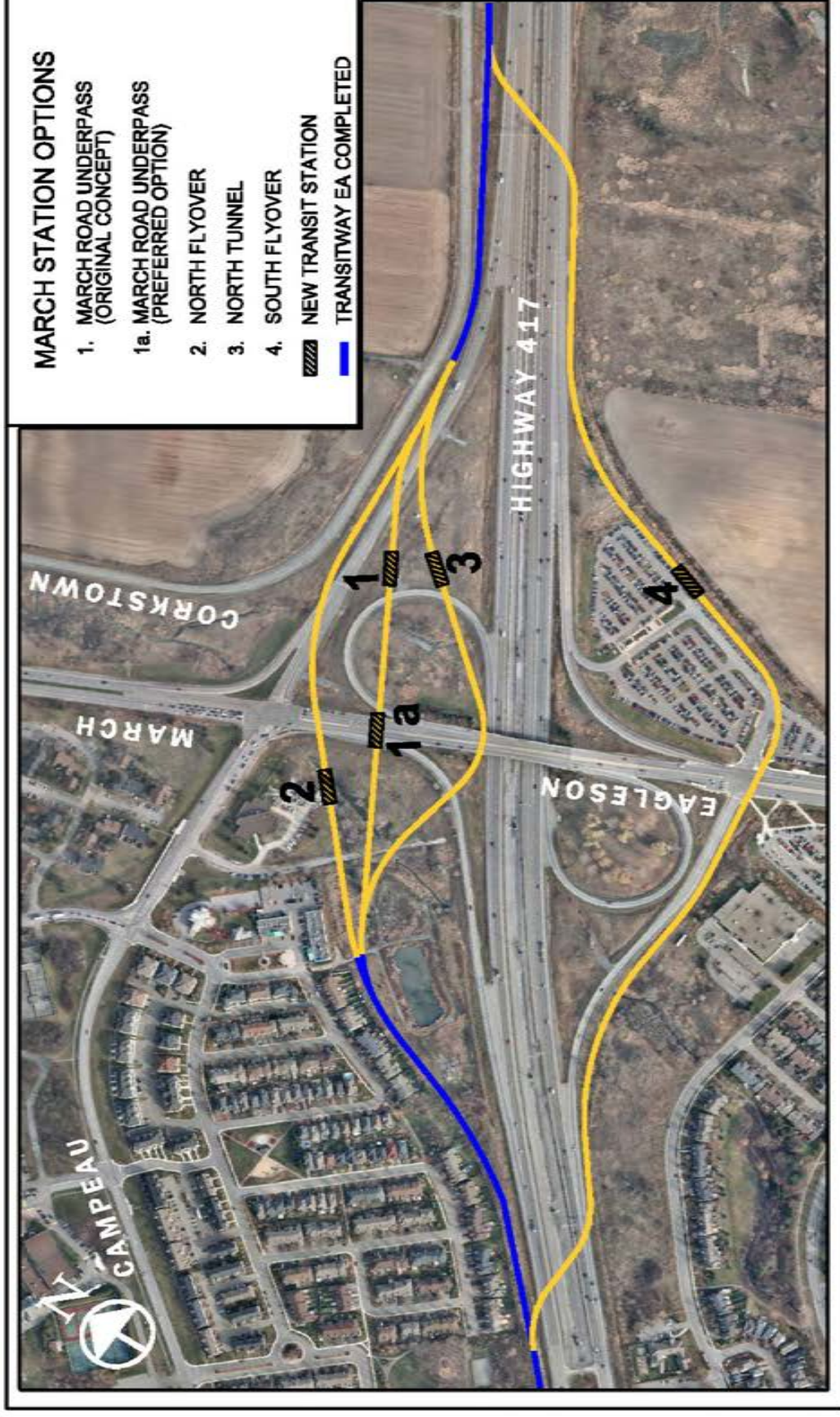
The evaluation of alternatives for the connection was largely dictated by the location of the March Station and its effects on the existing social and environmental conditions. Evaluation criteria included:

- March Station Location
- Compatibility with Existing and Future Road System
- Ridership and Transit Operations
- Integration with Local Transit Routes and Transfers
- Geometrics
- Compatibility with Existing and Future Communities
- Effects on Noise, Air Quality and Vibration
- Soil and Groundwater Considerations
- Effects on Natural Features
- Constructability
- Capital Cost
- Land Acquisition Requirements
- Access to Eagleson Park and Ride Facility
- Impact on existing Infrastructure

Of the four options that were developed and analyzed, Option 1a which provides a grade-separated structure at March Road just north of Highway 417 is recommended.

The option was refined based on input and agency comments regarding:

- Placing the station under March/Eagleson;
- Allowing the entrances to be on the west side of the road, outside the Ontario Ministry of Transportation (MTO) ramps;
- Reducing the road grade to the west, allowing for easier bicycle access beside the Transitway; and
- Connections to the existing Eagleson Park and Ride facility through a pedestrian bridge.



Park and Ride Lot Locations

The TMP and OP both indicate the requirement for new Park and Ride facilities to serve communities outside the Greenbelt area. As part of the TMP update a background study was undertaken producing the policy document “Park and Ride Facilities for Ottawa - Part 2: Identification of Need, Evaluation and Implementation of Lots”. The study identified two general site areas for Kanata north area. The following two sites were identified for Park and Ride locations:

- Innovation Drive/Terry Fox Drive
- Along March Road north of Maxwell Bridge Road

The facility at Innovation Drive will provide space for approximately 1,000 parking stalls. The general site of the second Park and Ride lot on March Road (north of Maxwell Bridge Road), is to address future demand as a result of the approved Official Plan Amendment #76 (expansion lands along March Road). The lot could have approximately 500 parking spots. Its precise location will be confirmed through future planning exercises.



Description of Recommended Plan

Kanata North Transitway is a 6.5 km long dedicated facility which will link to the West Transitway in the vicinity of Highway 417/March-Eagleson interchange. The Transitway will approach the interchange on the north side of the Highway, within the right-of-way owned by the MTO, Ministry of Government Services (MGS) and the City. The West Transitway will pass beneath the interchange ramps and March Road where a new Station will be provided. East of the Station, a connection will be provided to the Moodie - March section of the West Transitway; whereas, on the west side it will connect with the March - Terry Fox section to complete the rapid transit network. Environmental Assessments for both of these sections of the West Transitway have already been completed.



The new March Station will serve as a transfer point for transit customers between Kanata north-south and West Transitway lines. Pedestrian access to the Station will be primarily from the west. Access from the existing Eagleson Park and Ride Lot (in the southeast quadrant of the interchange) will be via a new pedestrian bridge which will connect to both eastbound and westbound platforms of the March Station. Through the EA process of this planning exercise, the study team will continue to include a walk-in solution for transit users at Teron Station, as well as include the connections/transfers of local transit service to the Transitway, particularly at March Station.

At the west end of the Station, Kanata North Transitway will branch off from the West Transitway via an access road which will provide a grade separated route through the south-eastern portion of the Ontario Provincial Police (OPP) station site to pass under the Campeau/March intersection. The Transitway will rise in the centre of March Road and come to grade just south of the Corkstown/March intersection, which will be signalized to support road users.

From Corkstown/March intersection, the Transitway will become an at-grade facility to operate in dedicated, segregated lanes in the centre of March Road. The

Transitway will cross through 10 at-grade intersections using transit priority traffic signals. Stations will be provided at major intersections along March Road to provide access to adjacent residential and business developments as well as retail and other uses along the corridor. The following eight station locations are recommended:

- March (grade separated);
- Corkstown;
- Herzberg;
- Richardson/Teron;
- Carling;
- Solandt;
- Terry Fox; and
- Klondike.

With the exception of Corkstown, where both platforms are north of the intersection, all at-grade stations consist of far-side stops, allowing buses to cross the intersection before stopping for boarding and alighting passengers. Owing to the nature of the corridor and relatively low estimated bus volumes, by-pass lanes at stations are not recommended.

Bicycle lanes will be provided along the corridor to encourage active mode of transportation within the area. Bicycle lanes will be designed as a segregated facility during detail design stage of the project.

The Recommended Plan identifies two additional Park and Ride locations in Kanata North. Terry Fox/Innovation Drive (west of March Road) lot will require buses to exit the Transitway when travelling northbound and entering the Transitway when travelling southbound. The second Park and Ride site is identified at the north end of the urban community which will be integrated into new community plans. Both Park and Ride facilities will include bus turnback and layby facilities along with platforms for passengers and other facilities, as required, to support bus operations.

Implementation/Staging Opportunity

This project can be implemented in stages, and components can be coordinated with other projects (such as the new March Station, its connection with future West Transitway and the below grade section from Corkstown to the new station with the construction of West Transitway (Moodie - March) to minimize disruption to road users.

Analysis of Environmental Effects

The KNT will be designed and implemented with the benefit of contemporary planning, engineering, and environmental management practices. Regard shall be had for the legislation, policies, regulations, guidelines, and best practices of the day. Mitigation measures will be prescribed in the construction contracts and specifications.

Site Specific Mitigation Measures

Localized, site specific impacts are summarized below including recommended mitigation measures:

- Traffic Management, Access and Pedestrian Control Plan
- Landscape Plan to replace displaced habitat
- Fisheries Compensation Plan for the Crossing of Watt's Creek
- Species at Risk Verification will be conducted prior to construction
 - A Butternut Health Inspector will complete an assessment for any potentially impacted Butternut tree.
- Detailed Geotechnical Investigations undertaken during the design process in the vicinity of the interchange
- Stage 2 Archaeological Assessments in areas adjacent to the corridor from Teron to south of Corkstown

A comparison of existing to future conditions of noise and vibration data indicates that the addition of the Transitway will generally reduce environmental noise impacts from the roadway vehicle traffic.

The planned land use of future development areas will need to be considered and integrated during the future design stages of the Transitway in order to reduce conflicts and maximize land use opportunities.

Consultation

A key component of the Environmental Assessment (EA) process is the coordination and integration of the public consultation. The planning and coordination of the infrastructure and environmental mitigation requirements for the Transitway Connection, in consultation with the community, will help to ensure that the objectives of the City, the community, other approval authorities and stakeholders are fulfilled.

The Study benefitted from the review and feedback of participants from approval agencies, Aboriginal Communities (Algonquins of Ontario and Métis), stakeholder groups, community organizations, property owners, and businesses within the study area. In addition to the Agency, Business and Public Consultation Group meetings (three meetings each), three Public Open Houses were also conducted during the planning phase of the study.

A project bulletin and comment-questionnaire were developed and distributed at each of the open houses. A project website (<http://ottawa.ca/transitconnectstudy>) was established which provides information about the study progress.

Specific concerns include noise, vibration and environmental impacts of the transit facility, encouraging local transit service, park and ride locations, accessibility to existing and future park and ride lots and viability of a transit corridor along Teron Road. Comments also supported March Road as the best alternative.