

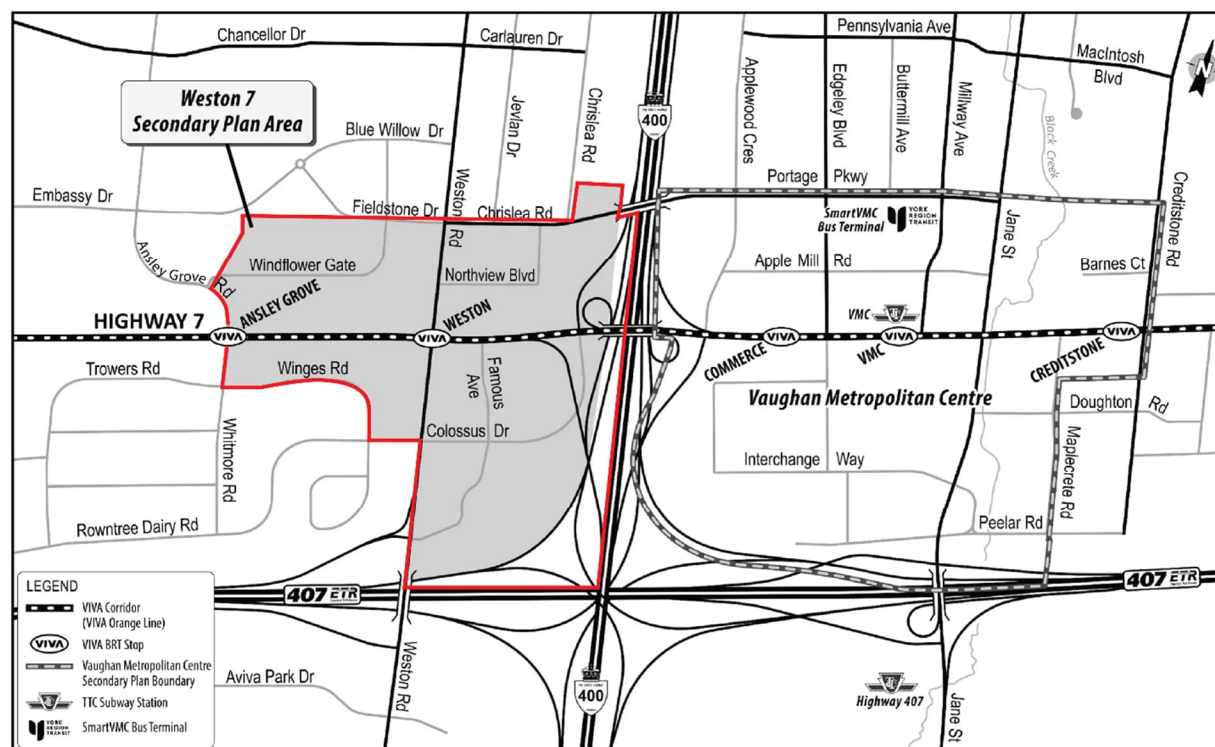
Executive Summary

Introduction

The Weston Road and Highway 7 (Weston 7) Transportation Master Plan (TMP) is a long range transportation plan that analyzes and identifies a multi-modal transportation network to help facilitate intensification and redevelopment of the Weston 7 Secondary Plan area into a mixed-use community that focuses on sustainable travel to meet mobility needs. The Weston 7 TMP has proceeded in parallel with the Weston 7 Secondary Plan study process. In order to inform the Secondary Plan, this TMP proposes a phasing plan which identifies transportation infrastructure improvements which must be delivered prior to or during redevelopment.

The Weston 7 Secondary Plan area, as analyzed in the Weston 7 TMP, is bounded by Highway 400 to the east, Chrislea Road and Blue Willow Drive to the north, Ansley Grove Road to the west and Wings Road and 407 ETR to the south, as presented in Figure ES 1.

Figure ES 1: Weston 7 TMP Study Area



The Weston 7 TMP meets the requirements for the Municipal Class Environmental Assessment Master Plan process, specifically addressing Phase 1 – identification of problems and opportunities and Phase 2 – assessment of alternatives and selection of preferred solution.

Stakeholder, Public Engagement and Consultation

Public and stakeholder engagement was held throughout the TMP study process, with two rounds of engagement held with technical agencies, a landowners' group, and the public. The first round of consultation focused on existing challenges and the identification of opportunities to meet future travel demands of the forecast growth. Comments received were mixed between concerns regarding existing congestion and potential worsening of conditions in the future, to support for intensification of land uses.

The second round of consultation presented the assessment of alternatives and preliminary preferred plan. Comments on the preliminary preferred plan were considered in refining the multi-modal transportation network that is presented in this TMP. Comments on the phasing of improvements were noted and addressed through the TMP's phasing plan.

Setting the Stage: Existing Conditions

The Weston 7 study area already is a busy area today with numerous retail, restaurant, and entertainment options and a growing residential community as high-rise residential buildings are being constructed. Many of the streets have sidewalks, some on both sides of the street and others only on one side. The cycling network is limited to facilities on Highway 7 and the existing community is predominantly auto-oriented. Bus rapid transit (BRT) operates in designated lanes on Highway 7, with two stops in the study area, at Weston Road and Ansley Grove Road. North-south bus service also operates on Weston Road.

Traffic operations analysis of existing conditions shows congestion at select intersections on Highway 7 and select intersections on Weston Road during peak travel hours. A portion of those travelling on these major arterials are through traffic with origins and destinations outside of the study area. Highway 400 immediately to the east and Highway 407 immediately to the south are major attractors of trips through the study area.

A Stage 1 archaeological assessment was conducted for the study area. The study area was found to have been significantly previously disturbed. Based on these findings, no further archaeological assessment is recommended. A cultural heritage assessment also was conducted. No built heritage

resources or cultural heritage landscapes with known or potential cultural value or interest were identified within the Weston 7 TMP study area.

Developing the Vision Statement

The analysis of existing conditions revealed a number of transportation needs and opportunities to address in the TMP, including:

- Provide a grid network of complete streets throughout Weston 7;
- Ensure the transportation network is designed all users;
- Improve safety for all modes of travel;
- Leverage new innovative smart mobility and Transportation Demand Management (TDM) measures; and
- Increase the share of non-auto trips.

These existing needs and opportunities, combined with the goal of accommodating over 50,000 residents and jobs in the study area provide a significant challenge, or opportunity, for the TMP to address.

The study area is compact and there are relatively limited opportunities to provide considerable additional vehicle capacity. The focus of the TMP has been to emphasize more sustainable travel options and provide strategic road network improvements where possible.

The TMP vision statement reads:

The vision of the Weston 7 Secondary Plan transportation network is to accommodate future growth that includes commercial, cultural, and entertainment destinations, along with housing and employment opportunities. The TMP will enhance the sustainable and multi-modal transportation system for the City with a network that supports all users and all modes of transportation. The City's transportation system will be accessible and promote connectivity, leveraging existing rapid transit infrastructure and service within and to and from the broader area.

The four key principles integrated into the vision are:

- Promoting sustainability;
- Improving connectivity;
- Enhancing accessibility; and
- Supporting mobility for all modes of transportation.

Alternative Network Development and Assessment

Extensive technical analysis was undertaken to analyze future conditions of multiple alternatives. These analyses used the York Region 2041 travel demand forecasting model as a basis and considered full build out of the study area, which at the time of analysis was estimated to be 64,900 people and jobs. Analysis of road links and intersections at a microsimulation level using the Aimsun software was conducted for an interim condition of about 40% of the above-noted full build out (about 26,000 people and jobs). Meetings were held with York Region to agree to parameters to use in the travel demand model to better reflect future conditions, such as reducing the amount of parking provided for future residential units and increasing the cost of all day parking, plus adjusting the trip rates from different land uses to reflect trip rates seen in more urban conditions.

The assessed alternatives are described below:

- Alternative 0 – Baseline: only Regional and Provincial planned improvements, with no City improvements;
- Alternative 1 – Colossus Drive: The Baseline plus the Colossus Drive extension;
- Alternative 2 – Demonstration Plan: The Baseline, Colossus Drive, plus initial road network concept for the Secondary Plan; and
- Alternative 3 – Network Plan: The Baseline, Colossus Drive, adjustments to the initial road network concept, and additional multi-modal improvements to enhance opportunities for residents and visitors to use sustainable modes of transportation.

Through the assessment detailed in the TMP, Alternative 3 was identified as the preferred alternative.

The analysis showed that a measured approach to development would be necessary. For the interim conditions with 26,000 people and jobs, chronic congestion was observed in the micro-simulation model at intersections along Highway 7 and Weston Road during peak hours. The level of congestion could be accommodated, but numerous intersections with movements with long delay were noted.

An analysis of the full build-out scenario noted above (64,900 people and jobs) was analyzed in the travel demand model only because the expected road congestion resulted in capacity constraints throughout the micro-simulation, precluding the ability to collect analytical results.

Future Multi-modal Network

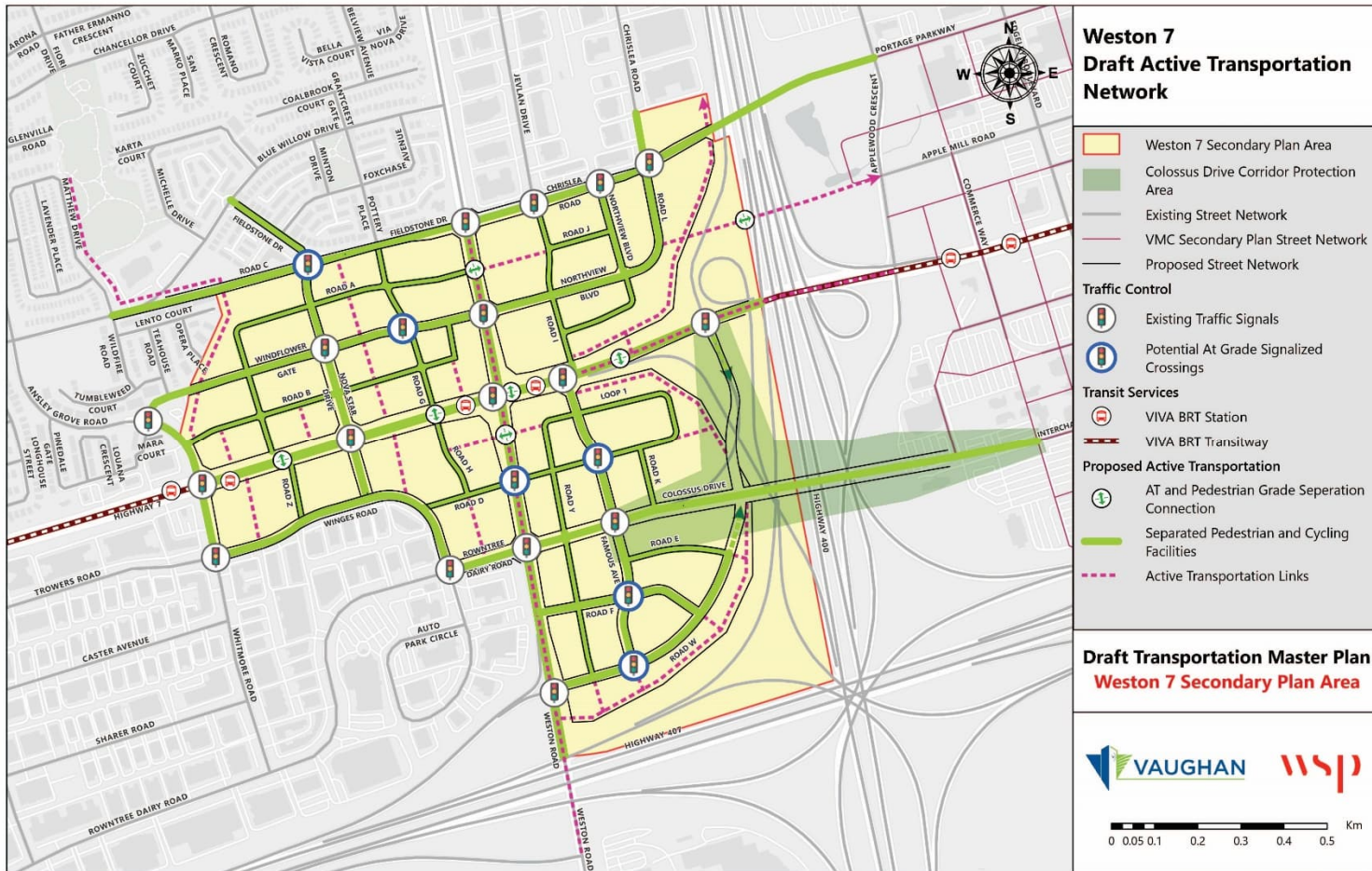
The preferred multi-modal network of the future is described in more detail in this chapter. Improvements for active transportation (human-powered walking, rolling, and cycling), transit, and

the street network were defined. Sidewalks will be provided on both sides of all streets. Dedicated cycling facilities will be provided on all collector and arterial streets. A transit circulator services the Weston 7 study area and is planned to connect to the Vaughan Metropolitan Centre subway station and the Highway 407 / Jane Street subway station. The Colossus Drive extension east across Highway 400 is the main road improvement, along with a finer grain street network to facilitate multi-modal access to properties.

Figures showing the individual active transportation improvements (Figure ES 2), transit improvements (Figure ES 3), and street network improvements (Figure ES 4) are provided.

Supportive transportation policy work is included as part of the preferred alternative and is designed to leverage the infrastructure investments. For example, an extensive parking management plan was developed to provide parking in strategic locations and in limited supply to encourage the use of non-auto modes of travel. Transportation demand management measures further support sustainable travel options.

Figure ES 2: Active Transportation Network Improvements



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Figure ES 3: Transit Network Improvements

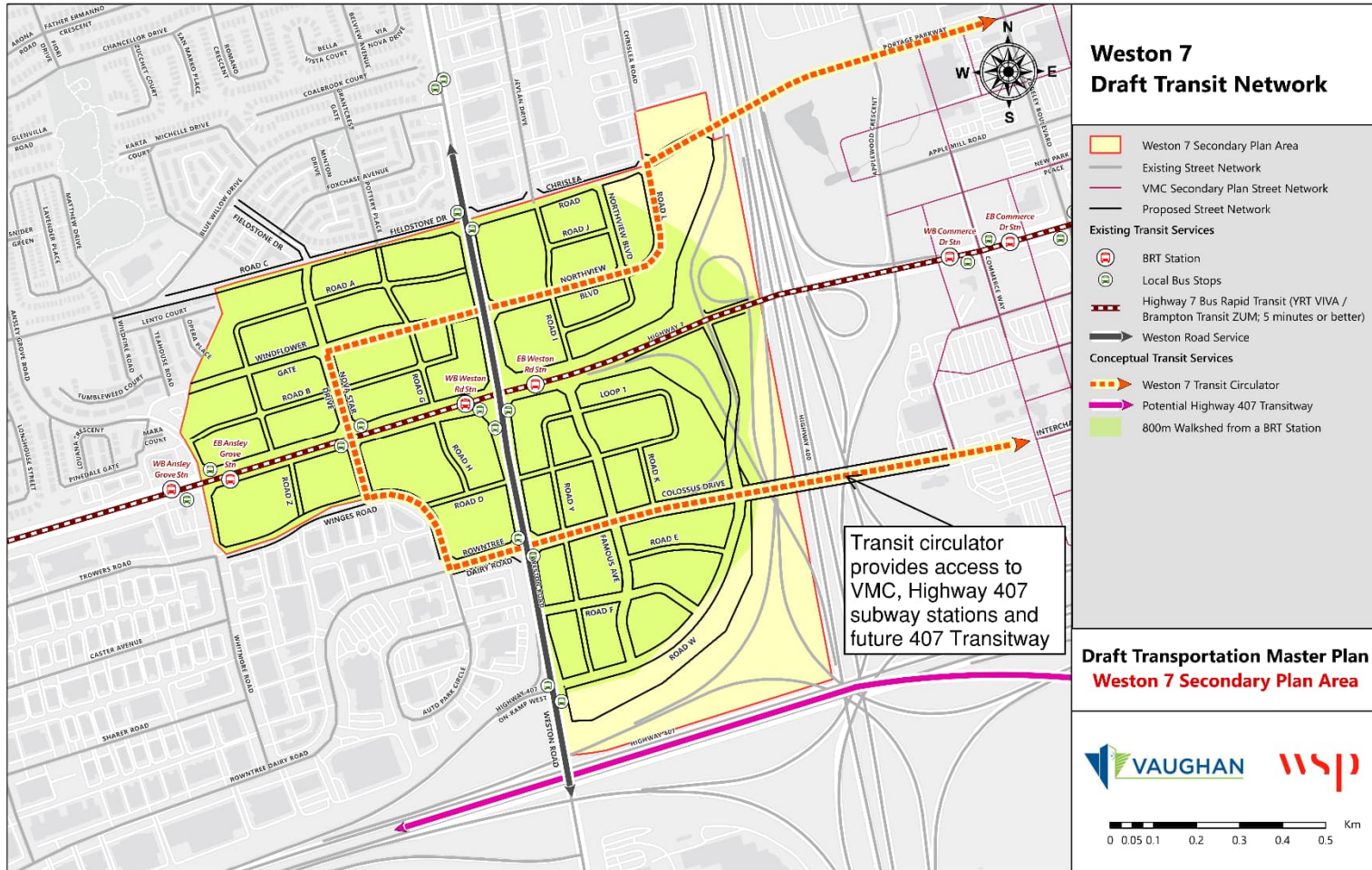
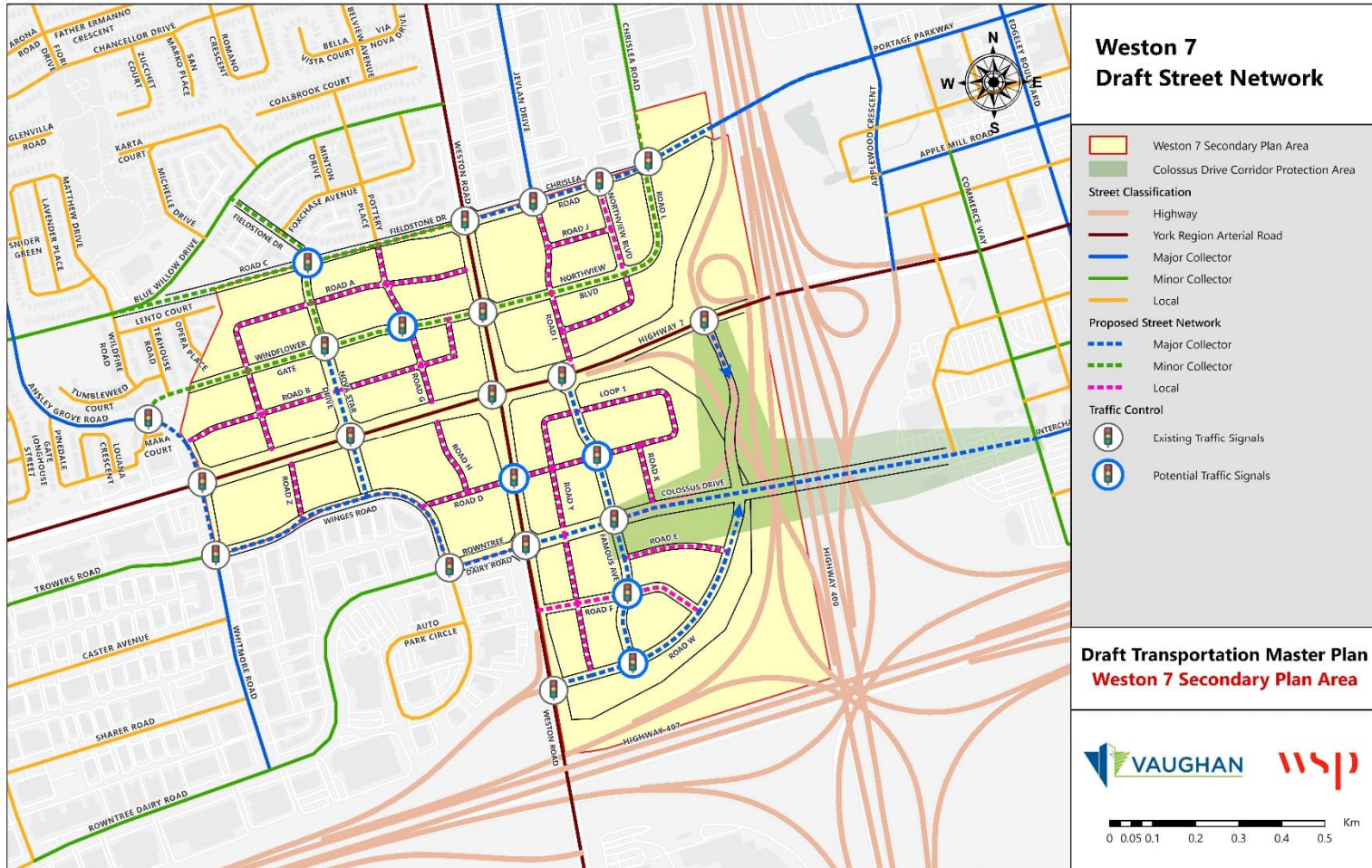


Figure ES 4: Street Network Improvements



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Implementing the Plan

The implementation framework of the multi-modal transportation network proposed for the Weston 7 Secondary Plan will be imperative for planning, protecting, and positioning the area to accommodate additional population and jobs. The framework is structured around both required implementation of broader City and Regional Transportation improvements as well as the multi-modal transportation network projects recommended for the Weston 7 Secondary Plan.

City and Regional transportation infrastructure will be necessary to provide the capacity to accommodate growth up to the 2041 interim horizon (15,840 people and 10,051 jobs). The necessary broader area City and Regional improvements are as follows:

- Colossus Drive extension over Highway 400;
- Bass Pro Mills extension from Highway 400 to Weston Road;
- Langstaff Road widening between Weston Road and Creditstone Road (4 to 6 lanes);
- Langstaff Road connection over CN Yard;
- Langstaff Road full interchange at Highway 400;
- Steeles Avenue widening west of Jane Street (4 to 6 lanes);
- Pine Valley Drive widening between Highway 7 and Steeles Avenue (4 to 6 lanes);
- Weston Road widening north of Steeles Avenue (4 to 6 lanes);
- Keele Street widening north of Steeles Avenue (4 to 6 lanes);
- Highway 7 rapid transit corridor (Viva headway 10 minutes);
- Steeles Avenue Transit Corridor (4 general purpose lanes plus dedicated transitway east of Jane St); and
- Jane St Transit Corridor (4 general purpose lanes plus dedicated transitway between Major Mackenzie Dr and Highway 7 (Viva headway 10 mins))

A quadrant-based approach is proposed for the orderly and contiguous implementation of the internal multi-modal transportation network. Generally, the collector street network in a quadrant will be secured prior to development proceeding within that quadrant, while local streets will be delivered when adjacent development proceeds. Identification of phasing of projects and improvements for local streets should also consider existing parcel fabric and built form.

The following street (ST) and active transportation (AT) projects have area-wide implications and should be secured prior to the development within a quadrant:

- ST-34, ST-36 and ST-31: Colossus Drive Extension and connecting roadways;
- ST-35 and ST-10: All ages and abilities cycling infrastructure along Chrislea Road and Portage Parkway (Weston Road to VMC);
- ST-5, ST-1.1, and ST-1.2: Fieldstone Drive extension and related improvements (Weston Road to Blue Willow Drive);
- AT-12: New pedestrian / cycling overpass connecting Weston 7 with VMC over Highway 400, located between Highway 7 and Portage Parkway existing structures;
- ST-23, ST-24.1, ST- 24.2 and ST-18: Rowntree Dairy Road, Wings Road and Whitmore Road improvements;
- AT-15: Weather protection along the existing Highway 7 median multi-use path over Highway 400;
- AT-24 Weston Road between Highway 407 ETR EB Ramp to Chrislea Road/ Fieldstone Drive – Improved AT Separated in-boulevard cycling facilities;
- Five-minute all-day bus frequencies along the Highway 7 Viva Rapidway; and
- Transit circulator connecting Weston 7 to VMC and Highway 407 Subway stations.

Preliminary capital construction cost estimates were developed at a project level for major and minor collector road projects and some of the major active transportation infrastructure and are displayed in Table ES 1. It should be recognized that the AT Network Implementation Study will advance the designs and refine cost estimates for new major active transportation infrastructure. Internal active transportation links will be implemented in conjunction with development.

Capital construction costs are preliminary and subject to adjustment and refinement through future studies and processes for detailed design and engineering.

Table ES 1: Summary of Major Infrastructure Costs

ID#	Street	From	To	Cost (\$)
ST-10 ST-35	Chrislea Road	Weston Road	Applewood Crescent / Portage Pkwy	\$6,600,000
ST-12.1 ST-12.2	Northview Blvd	Weston Road	Chrislea Road	\$2,600,000
ST-2.1 ST-2.2 ST-2.3	Windflower Gate	Ansley Grove	Weston Road	\$3,600,000
ST-1.2 ST-5	Fieldstone Drive Road C (Fieldstone Drive Extension)	Blue Willow Drive Fieldstone Drive	Weston Road Blue Willow	\$4,500,000

ID#	Street	From	To	Cost (\$)	
ST-7 ST-8	Nova Star Drive	Fieldstone Drive	Highway 7	\$2,200,000	
ST-19	Nova Star Drive	Highway 7	Winges Road	\$800,000	
ST-31	Road W	Weston Rd. @ 407 ETR EB Ramp	Colossus Drive	\$5,600,000	
ST-26 ST-33	Famous Avenue	Highway 7	Road W	\$4,600,000	
ST-23 ST-24.1 ST-24.2	Winges Road - Rowntree Dairy Rd- Whitmore	Highway 7	Weston Road	\$5,700,000	
ID#	AT Link	From	To	Improvement	Cost (\$)
AT-12	Crossing Highway 400	Road L	Applemill Road (VMC)	Grade separated AT Overpass over Highway 400	\$31,500,000
AT-15	Along Highway 7	Famous Avenue	Applewood Crescent	Enhance existing median multi- use path - Weather Protection	\$9,000,000
AT-19	Crossing Highway 7	SE quadrant east of Weston Road	NE quadrant east of Weston Road	Grade separated crossing of Highway 7	\$8,400,000