

Alternatives to the Undertaking (commonly called transportation planning alternatives) are functionally different means of addressing the stated transportation problems and opportunities, and achieving the purpose of the undertaking.

The purpose of the 427 Transportation Corridor undertaking, as defined in the 427 Transportation Corridor Environmental Assessment (EA) Terms of Reference, is to:

- Address existing and short-term transportation problems related to the current Highway 427 terminus, truck traffic accessibility to and from the CPR Vaughan Intermodal Facility, and their impact on inter-regional traffic in the Peel-York boundary area;
- Identify and protect required property for any proposed transportation corridor and allow planned development to occur outside of the transportation corridor; and
- Ensure that alternatives/preferred solution will not preclude or predetermine planning for the other future transportation corridors such as the GTA West Corridor or a future northerly extension of the 427 Transportation Corridor, if ever required.

The objectives used in identifying the alternatives to the undertaking for the 427 Transportation Corridor project include, but are not limited to:

- Meeting the purpose of the undertaking as defined in the EA Terms of Reference;
- Addressing the identified transportation problems and opportunities; and
- Considering the policy framework goals and objectives.

In addition to ‘doing nothing’, alternatives to address deficiencies in the transportation network capacity typically include those that increase network capacity, reduce transportation demand or combinations thereof.

The basic transportation planning alternatives to be considered as part of the EA were set out in the Terms of Reference. These are listed below, however, as noted in bold, some additional details have been included to further clarify the definitions.

- **Do Nothing** – “Do Nothing” is considered the status quo, where the transportation system would be limited to the implementation of **programmed or** approved provincial, regional and local municipal initiatives;
- **Travel Demand Management (TDM)** – TDM strategies include measures implemented to improve the operation of the current transportation system by managing travel demand independent of actually expanding or constructing new infrastructure. The emphasis of TDM strategies is to reduce overall demands on the network, shift demands to time periods outside of the critical congestion periods, and shift demands to alternative modes of transportation, principally transit, cycling and walking;
- **Transportation Systems Management (TSM)** – The objective of TSM is to improve the efficiency and safety of the transportation system and optimize the use of existing and planned infrastructure through a wide range of strategies and technology policies and initiatives. Measures include initiatives such as transit priority facilities, ITS (intelligent transportation system) strategies, high occupancy vehicle (HOV) lanes and reserved bus lanes (RBLs), Park’n’Ride facilities and intersection improvements;
- **Improved Existing Roadways** – The provision of improved capacity and operations on existing facilities may increase the performance of the transportation network. Congestion may be relieved through additional capacity on existing roadways, **beyond what is already planned for as part of programmed or approved provincial, regional and local municipal initiatives. It is noted that in**

the Terms of Reference, this alternative included improving existing “transitways” as well, however, as there are no existing transitways in the study area, this term has been omitted from the updated Improved Roadway definition;

- **New Roadways/Transitways** – Accommodating required capacity on new transportation facilities may increase the performance of the transportation network. Congestion may be relieved by introducing capacity in a new transportation corridor;
- **New or Improved Transit Services** – Expanding the capacity of the transit system through increased services within the existing transportation network and/or accommodating new transit services on new infrastructure may relieve congestion and increase the performance of the transportation network; and
- **Combinations of the above** – In addition to the individual planning alternatives noted above, it is proposed to establish additional “combined” planning alternatives that represent creative combinations of the above methods of adding capacity or reducing trips.

In July 2006, the province released the *Growth Plan for the Greater Golden Horseshoe*. This document sets out provincial policy for the Greater GTA, including the requirement that municipalities “develop and implement transportation demand management policies in official plans or other planning documents, to reduce trip distance and time, and increase the modal share of alternatives to the automobile.”¹ Local municipalities are currently developing their strategies to meet the provincial requirements.

The definition of ‘transportation demand management’ in the Growth Plan includes features from both the definitions of TDM and TSM included in the EA Terms of Reference. Therefore, given the new provincial policy direction, TDM and TSM initiatives are no longer viewed as “stand-alone” alternatives, but rather as part of each alternative to the undertaking.

In addition, as one of the primary goals of the EA study is to address truck traffic accessibility to and from the CPR Vaughan Intermodal Facility, it is recognized that new or improved transit services on their own would not fulfill this goal. Furthermore, while increased transit service and use would reduce the rate of growth of vehicle travel demand, the overall reduction would be small. Therefore, this planning alternative as a “stand-alone” solution would not achieve the purpose of the undertaking.

Given the above, it is apparent that a combination of the individual Alternatives to the Undertaking is desirable to address the identified problems and opportunities. Combination alternatives are also considered more realistic than the individual planning alternatives since major transportation network improvements are rarely implemented in isolation.

Therefore, the list of Combined Transportation Planning Alternatives includes:

1. **Do Nothing (including planned infrastructure improvements)**
2. **Improved Existing Roadways, TDM and TSM**
3. **Improved Existing Roadways, New or Improved Transit Services, TDM and TSM**
4. **New Roadways/Transitways, New or Improved Transit Services, TDM and TSM**

1. Ontario Ministry of Public Infrastructure Renewal, *Growth Plan for the Greater Golden Horseshoe*, 2006, p. 25.

Description of the Combined Alternatives to the Undertaking

Alternatives to the Undertaking	Alternative 1: "Do Nothing"	Alternative 2: TDM (Transportation Demand Management) TSM (Transportation Systems Management) Improved existing roadways	Alternative 3: TDM TSM Improved existing roadways New or improved transit services	Alternative 4: TDM TSM New roadways/transitways New or improved transit services
Description	<ul style="list-style-type: none"> Includes the implementation of approved or planned provincial, regional and municipal initiatives. Accounts for approved and programmed road expansion projects. 	<ul style="list-style-type: none"> TDM strategies improve operations by managing travel demand independent of actually expanding or constructing new infrastructure. TSM improves the efficiency and safety of the transportation system and optimizes the use of existing and planned infrastructure. In addition to the planned roadway and transit improvements included as part of the Do Nothing alternative, this planning alternative would further expand the existing road network. 	<p>Includes Alternative 2 and</p> <ul style="list-style-type: none"> Includes new and improved transit services that could include expanding the capacity of the transit system through increased services within the existing transportation network and/or accommodating new transit services or new transit infrastructure (e.g., reserved/dedicated lanes) 	<p>Includes TDM and TSM measures and</p> <ul style="list-style-type: none"> Includes the provision of additional capacity through new roadways which will increase the performance of the transportation network and relieve congestion. Includes new and improved transit services that could include expanding the capacity of the transit system through increased services within the existing transportation network and/or accommodating new transit services or new transit infrastructure (e.g., transitways).
Included in the Alternative	<p><i>Programmed or Approved Road Network Improvements</i></p> <ul style="list-style-type: none"> Highway 427 Interim Arterial Extension – This is an interim, four-lane municipal road extension of Highway 427 from the existing terminus at Highway 7 to an extended Zenway Boulevard (approximately 800 m north). New industrial subdivision roads northwest of the Highway 427 terminus – Several new roads are either planned or under construction northwest of the Highway 427 terminus at Highway 7. These include the westward extension of Zenway Boulevard to Fogal Road, the widening of Fogal Road to four lanes, the realignment of Huntington Road south of Langstaff Road as well as several new local roads. Langstaff Road – Widen to four lanes between Highway 50 and Highway 27 and realign at Huntington Road. Major Mackenzie Drive – Widen to four lanes east of Highway 50. Highway 27 – Widen to six lanes between Rutherford Road and Highway 7. Highway 50 – Widen to 6 lanes from Mayfield Road to Highway 7. Mayfield Road and Countryside Drive – Widen to 4 lanes from Airport Road to Highway 50. New four lane arterial extension west of Major Mackenzie Drive. Castlemore Road – Widen to six lanes from Airport Road to Highway 50. Cottrelle Boulevard – New four-lane arterial extension of Langstaff Road into Brampton. Ultimately, this road will extend to Airport Road. Ebenezer Road – Widen to four lanes from McVean Drive to Highway 50. Clarkway Drive and Coleraine Drive – Widen to four lanes from Mayfield Road to Highway 50. <p><i>Programmed or Approved Transit Improvements</i></p> <ul style="list-style-type: none"> VIVA – York Region has begun implementing the VIVA express bus service along several routes in the region, including Highway 7. Currently, the service extends westward only to Martin Grove Road, however, it will ultimately extend to Highway 50. As part of the ultimate VIVA plan, a separate Transitway will be constructed along the Highway 7 corridor in the study area. Conventional – York Region has identified Highway 27 between Rutherford Road and Steeles Avenue for transit priority implementation between 2011 and 2021. The range of possible priority measures includes various TSM strategies such as queue-jumping lanes, HOV lanes, and transit vehicle signal priority. 	<p>In addition to the improvements lists under the Do Nothing alternative, additional roadway expansions include:</p> <ul style="list-style-type: none"> Widening Highway 50 to eight basic lanes. Widening Highway 27 to eight basic lanes. Widening of Rutherford Road to six basic lanes. 	<p>In addition to the roadway improvements of Alternative 2, new or improved transit services could include:</p> <ul style="list-style-type: none"> Widening Highway 50 to eight basic lanes. Widening Highway 27 to eight basic lanes. Widening of Rutherford Road to six basic lanes. Expanded conventional transit service in East Brampton and West Vaughan. Improved GO Bus service in Brampton, Vaughan and Bolton. 	<p>In addition to the possible new or improved transit services of Alternative 3, but instead of expanding the existing road network beyond what is already planned, this alternative would build new roadways/transitways such as:</p> <ul style="list-style-type: none"> An extension of Highway 427 and the construction of a parallel transitway in the 427 corridor. Expanded conventional transit service in East Brampton and West Vaughan. Improved GO Bus service in Brampton, Vaughan and Bolton.