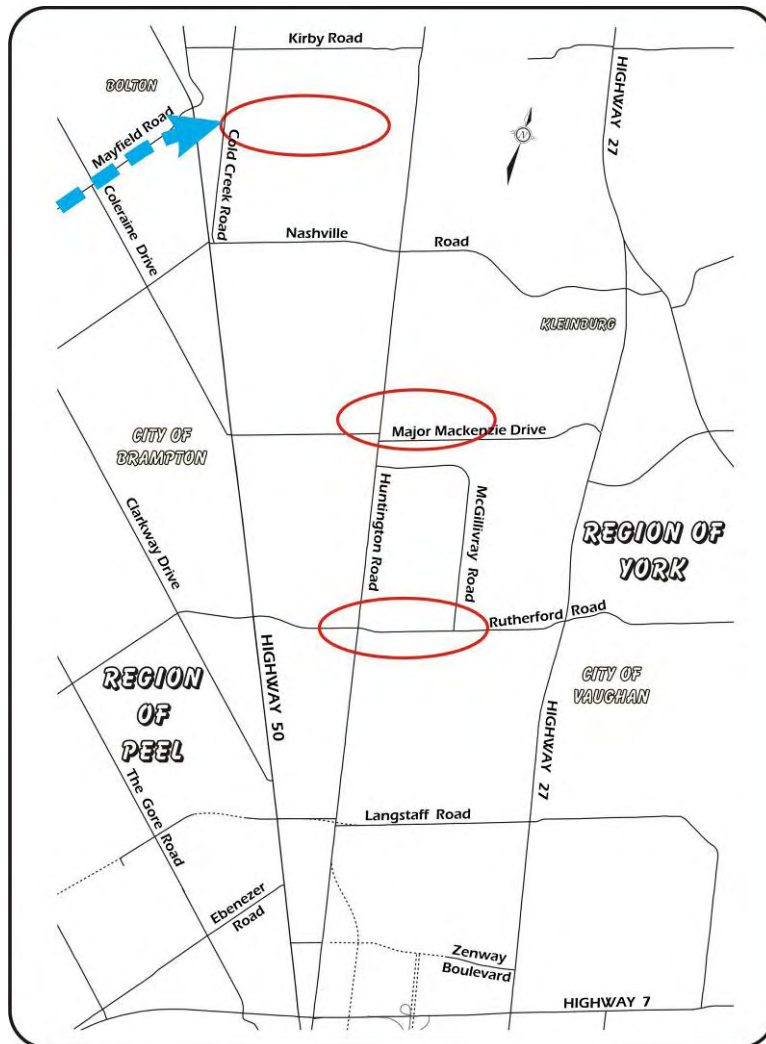


## TERMINUS LOCATIONS

Of all possible terminus locations, three were identified to be carried forward for additional investigation as they were considered both feasible and addressed the study objectives to varying degrees. These were **Rutherford Road**, **Major Mackenzie Drive** and **Mayfield Road\*** extension.



\* The local municipalities have identified a potential Mayfield Road easterly extension to meet a potential Highway 427 extension. A municipal Transportation Master Plan study for the northeast Brampton/west Vaughan road network is underway.

# EVALUATION OF TERMINUS LOCATIONS

Criteria/Measure	Alt 1: Rutherford Road	Alt 2: Major Mackenzie Drive	Alt 3: Mayfield Road Extension	Summary
<b>1.0 SOCIO-ECONOMIC ENVIRONMENT</b> <ul style="list-style-type: none"> <li>Property and Access</li> <li>Community Effects</li> <li>Government Land Use Strategies</li> </ul>				<p>Alternatives 1 and 2 result in very similar effects to existing properties. These alternatives also result in fewer nuisance and aesthetics effects than Alternative 3 as the surrounding lands are proposed to be redeveloped to commercial/industrial uses. All alternatives are considered compatible with the Growth Plan and local Official Plans; however, Alternatives 2 and 3 provide additional certainty for developers. Although Alternative 3 provides the most certainty, most of the lands in Vaughan north of Major Mackenzie Drive are designated rural/residential.</p> <p><b>Therefore, Alternative 2 is preferred.</b></p>
<b>2.0 CULTURAL ENVIRONMENT</b> <ul style="list-style-type: none"> <li>Archaeology</li> <li>Heritage Features</li> <li>Recreation</li> </ul>				<p>Alternative 1 results in the least number of built and cultural heritage features that may be impacted directly. It is anticipated that these impacts can be avoided or effectively mitigated through the route alignment and design process. From an archaeological perspective, Alternative 1 is preferred as it has the lowest potential of impacting land with archaeological potential.</p> <p><b>Therefore, Alternative 1 is preferred.</b></p>
<b>3.0 NATURAL ENVIRONMENT</b> <ul style="list-style-type: none"> <li>Fish and Fish Habitat</li> <li>Upland Vegetation</li> <li>Wetlands</li> <li>Wildlife and Habitat</li> <li>Designated Natural Features</li> <li>Groundwater</li> <li>Air Quality</li> <li>Agricultural Soils</li> <li>Petroleum, Mineral and Mineral Aggregate Resources</li> <li>Property Waste and Contamination</li> </ul>				<p>From a natural environment perspective Alternative 1 results in the fewest impacts in all factor areas. This is primarily due to the fact that it is the shortest alternative and therefore impacts the fewest features.</p> <p>Alternative 2 results in slightly more potential effects than Alternative 1, however the difference between these two alternatives is relatively minor as many of the aquatic and terrestrial features between Rutherford Road and Major Mackenzie Drive have been culturally influenced.</p> <p>Alternative 3 results in higher natural environment effects than Alternatives 1 or 2. The reason for this is due to the fact that this alternative is significantly longer than the others (10km versus 6km and 4km) and the features north of Major Mackenzie Drive are potentially more sensitive. There is a greater abundance of small unevaluated wetland features, particularly north of Nashville Road, and greater potential for groundwater-wetland interaction, increasing their potential sensitivity relative to Alternatives 1 and 2. The area north of Nashville Road is also a headwater zone for Rainbow Creek and Robinson Creek. With respect to groundwater, Alternatives 1 and 2 are both outside of the wellhead protection zone unlike Alternative 3 which impacts this zone. In addition, Alternative 3 reduces the future flexibility to avoid more significant effects to natural features to the north if a future extension is considered.</p> <p><b>Therefore Alternative 1 is preferred, however it is only slightly preferred over Alternative 2.</b></p>
<b>4.0 TECHNICAL CONSIDERATIONS</b> <ul style="list-style-type: none"> <li>Transportation</li> <li>Engineering</li> <li>Cost</li> </ul>				<p>From a technical point of view, Alternative 1 would have the lowest cost and the least amount of constructability issues due to the lowest number of crossing structures. It would also not preclude or predetermine a possible future extension or a possible connection with another transportation corridor. However, Alternative 1 would not be compatible with the ultimate CPR Vaughan Intermodal Facility expansion plans or other planned municipal road network improvements. In addition, significant traffic congestion would still exist on parallel municipal roads in the study area. Therefore, Alternative 1 is not preferred.</p> <p>Alternative 2 would not preclude or predetermine a possible future extension or a possible connection with another transportation corridor, but would have higher construction costs and constructability issues. It would, however, have acceptable traffic operations on the parallel municipal road network and it would be compatible with both CPR's ultimate Vaughan Intermodal Facility expansion plans and other planned municipal road network improvements.</p> <p>Similar to Alternative 2, Alternative 3 would be compatible with both CPR's ultimate Vaughan Intermodal Facility expansion plans and other planned municipal road network improvements. Alternative 3 would also provide marginally better traffic operations on the parallel municipal road network when compared to Alternative 2. However, Alternative 3 would also limit the possibility for future Highway 427 expansion to a narrower corridor (e.g., to east side of Bolton) and would predetermine the general area of any possible future Highway 427/Humber River crossing. It would also limit the flexibility for a future connection with a proposed GTA West Transportation Corridor. In addition, it would also have the highest construction cost and constructability issues of all the alternatives. Therefore, when compared to Alternative 2, Alternative 3 is not preferred.</p> <p><b>Therefore, Alternative 2 is preferred.</b></p>
<b>OVERALL SUMMARY</b>				<p>Although Alternative 1 is marginally preferred over Alternative 2 in Cultural Environment and Natural Environment, the impacts on both environments would be similar.</p> <p>In terms of Socio-Economic Environment, Alternative 2 would be able to define the extension corridor right-of-way for an additional block of area (without compromising any possible future connection with the proposed GTA West Corridor and future possible extension of the 427 Corridor). This would provide additional certainty for developers in the area.</p> <p>From a technical point of view, Alternative 1 would not be compatible with the ultimate CPR Vaughan Intermodal Facility expansion plans or other planned municipal road network improvements. In addition, significant traffic congestion would still exist on parallel municipal roads in the study area.</p> <p><b>Therefore, the marginal benefits of Alternative 1 in Cultural and Natural environments would be outweighed by the disadvantages in terms of Socio-Economic environment and traffic impacts, especially the inability to facilitate truck access efficiently to and from the CPR Vaughan Intermodal Facility.</b></p> <p>When comparing Alternative 2 and Alternative 3, Alternative 2 is preferred in all factor areas (Socio-Economic, Cultural, Natural Environment, and Technical). Alternative 3 would provide a protected corridor up to the Mayfield Road extension area, thereby allowing maximum certainty for developers within the study area. Alternative 3 would also provide marginally better traffic operations on the parallel municipal road network. However, Alternative 3 would significantly predetermine/preclude a future connection with a proposed GTA West corridor and the alignments of any further extension of the 427 corridor, if ever required. In addition, Alternative 3 would have higher environmental (i.e., Socio-Economic, Cultural, and Natural) effects. It is anticipated that the environmental impacts of Alternative 2 can be successfully mitigated.</p> <p><b>The disadvantages of Alternative 3 in predetermining / precluding planning of future transportation corridors, which would have significant ramifications to the social and transportation issues in the surrounding municipalities, and higher environmental impacts would outweigh the benefit of protecting an additional section of the corridor right-of-way in the Mayfield Road Extension area.</b></p> <p><b>Therefore, Alternative 2, a Highway 427 terminus at Major Mackenzie Drive, is the preferred terminus alternative.</b></p>

Relative degree to address each factor:



## TECHNICALLY PREFERRED TERMINUS LOCATION

**Major Mackenzie Drive is the technically preferred terminus location.**

**Major Mackenzie Drive** is preferred because it fulfills all the study objectives without added environmental impacts:

- It addresses the existing and short-term transportation issues associated with the current Highway 427 terminus;
- It is compatible with the ultimate CPR Vaughan Intermodal Facility expansion plans, and other planned municipal road improvements; and
- It does not pre-determine/preclude a possible future extension, and/or connection with a proposed GTA West Corridor.

**Rutherford Road** is not preferred because:

- It does not support the ultimate CPR Vaughan Intermodal Facility expansion plans;
- It is not compatible with other planned municipal road improvements; and
- Significant traffic congestion would continue to exist on parallel municipal roads.

**Mayfield Road** is not preferred because:

- It pre-determines/precludes a possible future extension, and/or connection with a proposed GTA West Corridor;
- It results in additional environmental impacts (socio-economic, cultural and natural) without significant gain in meeting the study objectives; and
- These impacts outweigh the slightly improved transportation operations when compared to the Major Mackenzie Drive terminus.

