An Integrated Corridor Management (ICM) initiative consists of the operational coordination of multiple transportation networks and cross-network connections comprising a corridor, and the coordination of institutions responsible for corridor mobility. The 14 NITTEC member agencies and other related transportation agencies/organizations within the Niagara Frontier Corridor have entered into a collaborative effort to pursue such an initiative. The networks within this corridor that will be included as part of the ICM initiative is the highway network, border crossing bridges network, rail network, bus network, and air network.

The Niagara Frontier Corridor is comprised of the border region that encompasses the Niagara River border crossings and is a strategic international gateway for the flow of trade and tourism between the United States and Canada. The Niagara River, flowing from Lake Erie to Lake Ontario, forms the Niagara Frontier border with the United States and Canada.

On the Canadian side, the Regional Municipality of Niagara covers approximately two-thirds of the Niagara Peninsula and consists of twelve local municipalities. The cities of St. Catharines and Niagara Falls are the largest urban centers on the Canadian side of the Niagara Frontier. Further west is the City of Hamilton and beyond that the Greater Toronto Area (GTA).

On the United States side, the Buffalo-Niagara Frontier region forms the western border of New York State with the province of Ontario. The City of Buffalo, the second largest city in New York State, is located at the easternmost end of Lake Erie, overlooking the Niagara River. The City of Niagara Falls, New York, 20 miles northwest of Buffalo, is located in Niagara County opposite Niagara Falls, Ontario. The region consists of Erie and Niagara Counties and 64 local municipalities. The area also includes Native American lands of the Seneca Nation of Indians in Erie County as well as the Tuscarora Nation of Indians and the Tonawanda Seneca Nation in Niagara County.

The goal of the proposed ICM is to improve mobility, safety, and other transportation objectives for travelers and goods traveling through the above mentioned cities and municipalities. To achieve this goal, a vision was established for the Niagara Frontier Corridor ICM initiative that summarizes the efforts of the ICM stakeholders.

**Vision:**

“To improve mobility through integrated management of transportation assets – freeways, arterials, transit, and managed lanes – in the Niagara Frontier Corridor.”

...making the regional bi-national transportation system more safe and efficient...
**Manage and operate the transportation corridor as a system**

This Integrated Corridor Management (ICM) Concept of Operations focuses on managing the Niagara Frontier Corridor as a system instead of managing the assets within the corridor individually.

**The ICM Concept of Operations documents the following:**
- known elements and high-level capabilities of the system;
- geographical and physical extents of the corridor;
- resources needed to design, build, operate, and maintain the system;
- stakeholders involved with the system, and their respective responsibilities; and
- what the corridor currently lacks, and what the system will provide.

**Establish agency roles and responsibilities**

The stakeholders of the Niagara Frontier Corridor include the 14 NITTEC member agencies and other related transportation agencies/organizations who have a vested interest in mobility through the corridor. Each of the stakeholders has specific roles and responsibilities they perform to provide an effective and efficient transportation corridor.

Participating NITTEC agencies have entered into a Memorandum of Understanding, that establishes each stakeholder’s willingness to cooperate and coordinate with other stakeholders to improve regional and cross border transportation mobility.

**Improvement of performance based on goals and objectives**

Short-term (less than 5 years) and long-term (5-10 years) goals were developed for the ICM that focused on improvement in the following four operational categories: Agency Coordination, Traveler Information, Mobility (Arterial, Border, Freeway, and Transit), and Incident Management. For these categories, a total of 75 goals were identified.

**Operational Categories and Goals**

<table>
<thead>
<tr>
<th>Category</th>
<th>Short Term Goals</th>
<th>Long Term Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agency Coordination</td>
<td>1 short term</td>
<td>1 long term</td>
</tr>
<tr>
<td>Traveler Information</td>
<td>15 short term</td>
<td>17 long term</td>
</tr>
<tr>
<td>Mobility (Arterial, Border, Freeway, Transit)</td>
<td>11 short term</td>
<td>12 long term</td>
</tr>
<tr>
<td>Incident Management</td>
<td>9 short term</td>
<td>9 long term</td>
</tr>
</tbody>
</table>

**Implement Niagara Frontier Corridor Institutional Framework**

The Niagara Frontier Corridor ICM concept will be implemented, operated, managed, and maintained using the ICM framework.

**Implement ICM Concept**

NITTEC’s four main constituencies will be essential partners in helping implement the Niagara Frontier Corridor ICM.

The main priority of the ICM is to operate the established priority corridors in a more coordinated and integrated manner, thereby increasing overall corridor throughput and enhancing the mobility of the corridor.

**Develop System Requirements**

A Requirements Document was developed as part of the Concept of Operations that defines the capabilities that the ICM should have to address the needs and objectives of the corridor as defined by the corridor stakeholders. The requirements have been separated into the following categories for implementation: Non-Functional (General), Functional, and Data Requirements. The following attributes were presented in table format for each requirement.

<table>
<thead>
<tr>
<th>Requirement ID</th>
<th>Requirement Description</th>
<th>Traceability</th>
<th>Criticality</th>
</tr>
</thead>
</table>

...making the regional bi-national transportation system more safe and efficient...