

# *Clarington*

## **Draft Study Design Report**

Regional Road 17 Realignment  
Integrated Class Environmental Assessment Study

November 2021

**Submitted by:**

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### Revision History

Revision	Date	Description of Major Change

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## 1.0 INTRODUCTION

The Study Design Report is the initial consultation step in the Municipality of Clarington's Integrated Environmental Assessment (EA) Study (the Study) for the planning of the realignment of Regional Road 17 and associated development lands. The study will follow the Integrated Approach for the Municipal Class EA (2015) and *Planning Act*, in conjunction with the development of the North Village Secondary Plan. This Study Design Report is the initial public, agency and stakeholder consultation document for the study and presents a description of the following:

- Proposed Problem and Opportunity Statement;
- Planning Alternatives and Preliminary Design Alternatives;
- Initial coarse screening to identify reasonable alternatives to be carried forward for further study;
- Public, agency and Indigenous Peoples consultation program;
- Evaluation process (to compare alternatives); and
- Description of study documentation and post-study steps.

The Draft Study Design Report will be circulated to appropriate agencies, and will be presented to the Technical Advisory Committee and to the general public by posting the document on the Municipality's website. The circulation of this draft report is intended to solicit early input in the planning process. The Draft Study Design Report will be finalized following the second Public Information Centre including revisions based on input received. The final Study Design Report will then be posted on the Municipality's website.

Included in this document is a proposed consultation program for obtaining input from potentially interested and affected persons during this study. Consultation is undertaken early in the study to identify interested persons, government agencies, and Indigenous Peoples community groups, and establish how they can be engaged in the study.

This study will be completed as an Integrated Municipal Schedule C project simultaneously with the North Village Secondary Plan under the *Planning Act*. This will integrate transportation and land use planning for the new community. The study will evaluate alignment, cross section, intersection locations and types and active transportation alternatives. These alternatives will consider transportation, land use integration as well as environmental effects (natural, social and cultural environments) and cost.

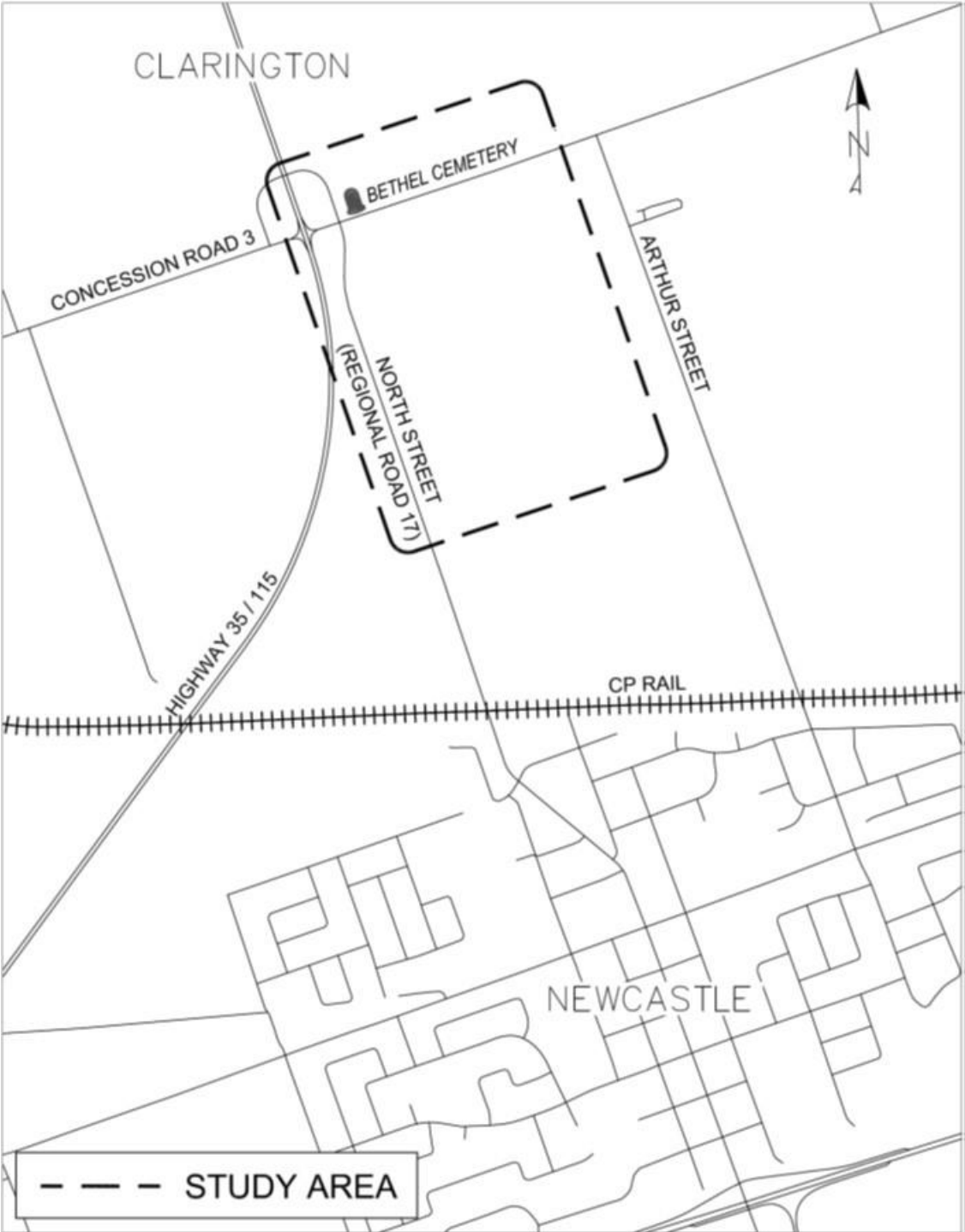
The Municipality of Clarington is the proponent for the Regional Road 17 realignment, even though the road is under the jurisdiction of the Region of Durham, because the project is driven by the Municipality's North Village Secondary Plan. The Region of Durham is a participant on the Steering Committee and will be included in the technical decisions.

**At the time of release of the Draft Study Design Report, the Province of Ontario has implemented measures to deal with the COVID-19 pandemic, and therefore the**

**distribution of materials is relying on web-based communications with the public. Conventional public events may be conducted during subsequent stages of the study.**

**1.1 Study Area**

The Study Area is illustrated in **Figure 1**.



**Figure 1: Study Area**

## 1.2 Project Orientation

For the purposes of this study, Regional Road 17 is described as a north-south road.

## 1.3 Study Process

The Environmental Assessment will follow the Class EA process, thereby meeting the requirements of the Class Environmental Assessment for the Municipal Class Environmental Assessment (2015). The Study is being initiated as an Integrated Municipal Schedule C project based on the range on anticipated effects and capital cost of the project. The EA Study consultation process will be integrated with the planning consultation events for the North Village Secondary Plan.

Two Public Information Centres (PIC's) will be held as part of this study to present the proposed approach, Preliminary Design Alternatives, Technically Preferred Plan, Environmental Inventories, Technical Investigations and Effects and Mitigation Plan. The study will conclude with an Integrated Environmental Study Report (ESR). The public will be provided with a 30-day review period at the Study conclusion. Two additional PIC's will be held for the North Village Secondary Plan: the first has been held prior to the commencement of this Regional Road 17 Realignment Study; and the second will be held following conclusion of the Regional Road 17 Realignment EA Study.

As the initial step in the Class EA process, this Study Design Report is being made available to the public. This is a discretionary Step of the Municipal Class EA process, as illustrated in **Figure 2** following Phase 2 of the Class EA process. This additional discretionary step is similar to the Step 1.2 activity in that it provides the context for the project where there has been a lag in time since the Transportation Master Plan (TMP) was completed. The public and agencies will have this initial opportunity to comment on the proposed approach and previous TMP recommendations. The Class EA process does not have a public review period for TMP's following Phase 2 (Municipal Class EA), and this current study now offers the public and agencies an opportunity to make project specific comments.

**Section 1.0** describes the proposed approach and the Phases to be addressed for the study.

### 1.3.1 Municipal Class EA Phases

The Municipal Class EA Process is illustrated in **Figure 2**. The following is the breakdown of tasks, by phase, for a Municipal Schedule C project:

#### **Phase 1: Identify the Problem (Completed during the TMP)**

Step 1: Identification and description of the problem or opportunity.

Step 2: Discretionary public consultation (Draft Study Design available on the Municipality's website).

## **Phase 2: Alternative Solutions (Completed during the TMP)**

Step 1: Identification of alternative solutions to the problem.

Step 2: Identify the study area and a general inventory of the natural, social and cultural environments.

Step 3: Identification of the net positive and negative effects of each alternative solution.

Step 4: Review and validation of alternative solutions.

Step 5: Identification of reasonable design alternatives for the preferred solution.

Step 6: Public consultation.

Step 7: Confirmation of design alternatives, finalization of Study Design for work program, and refinements to or addition of design alternatives to be carried forward to Phase 3.

Step 8: Selection of the preferred solution

- (Draft Study Design available on the Municipality's website – added activity to initiate this current study).

## **Phase 3: Alternative Design Concepts for the Preferred Solution**

Step 1: Identification of alternative designs.

Step 2: Preparation of a detailed inventory of the natural, social and economic environments.

Step 3: Identification of the potential impacts of the alternative designs.

Step 4: Evaluation of the alternative designs.

Step 5: Selection of preferred design.

Step 6: Public consultation at a PIC.

## **Phase 4: Environmental Study Report**

Step 1: Completion of the Environmental Study Report.

Step 2: 30-day public review period.

Step 3: Filing of the Environmental Study Report and Notice of Completion.



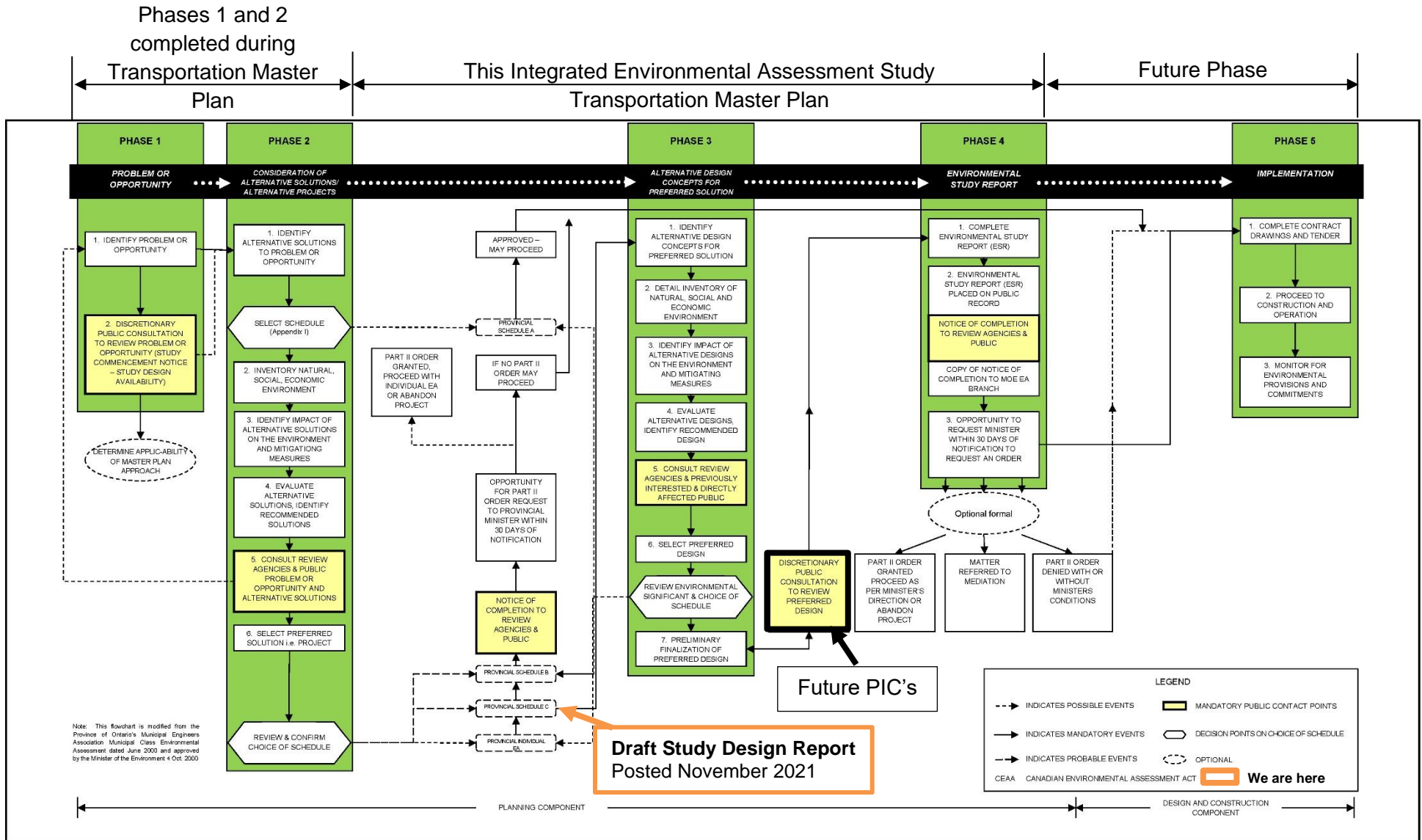


Figure 2: Municipal Class EA Process

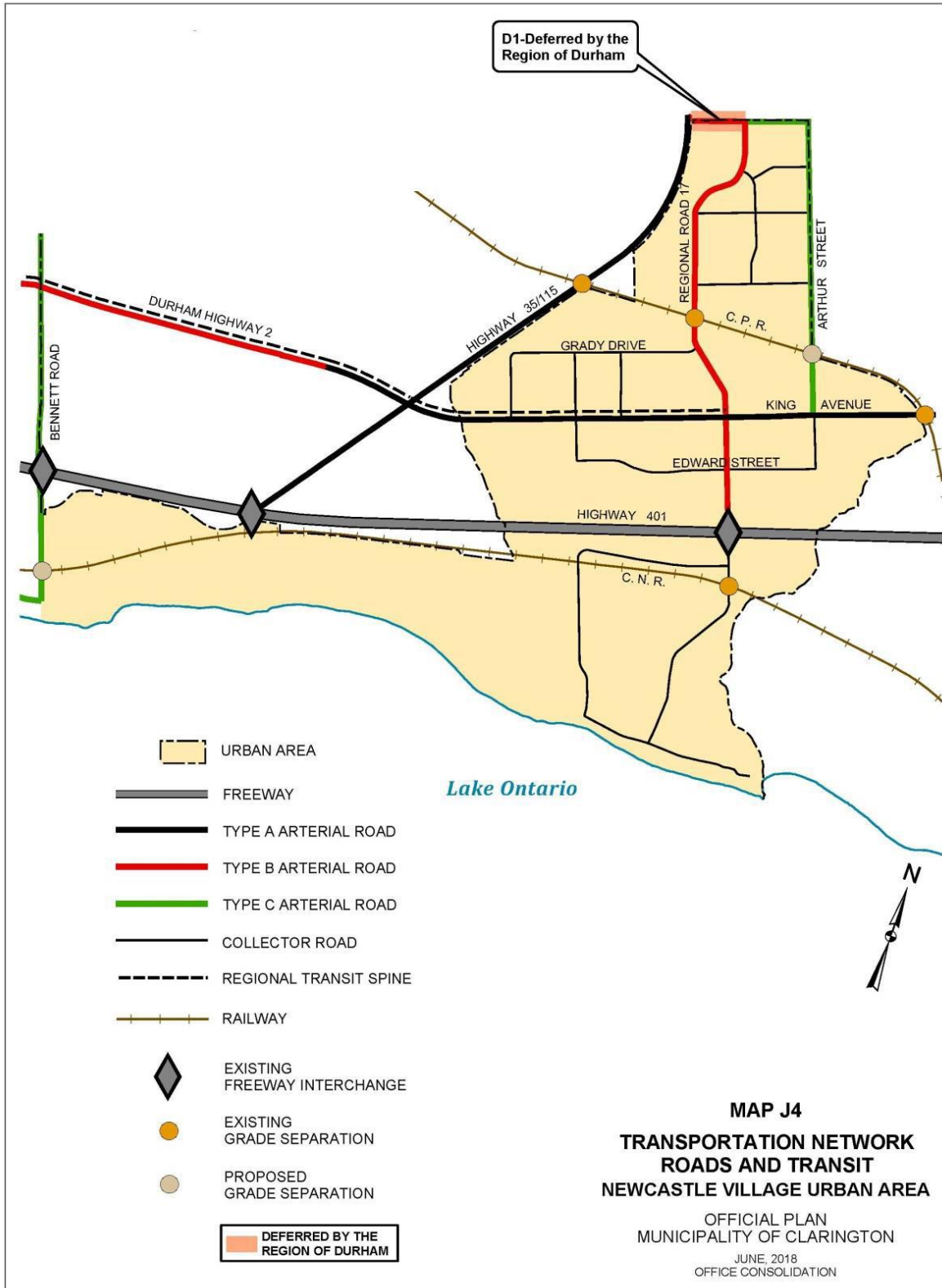
## 2.0 BACKGROUND

### 2.1 Study Background

The Newcastle North Village Neighbourhood Design Plan (July 2012) identified the need to realign Regional Road 17 (North Street) south of Concession Road 3. The Region of Durham and MTO have identified transportation operation and safety issues with the Concession Road 3 intersection with existing Regional Road 17 (North Street). The increased traffic associated with the new development cannot be accommodated with the existing intersection and Regional Road 17 location. MTO requested the relocation of the Region Road 17 intersection.

The land use plan was developed to be compatible with the need to separate the Regional Road 17/Concession Road 3 intersection from the Highway 35/115 ramp terminal intersection. MTO subsequently made the approval for the North Village development conditional upon the implementation of Regional Road 17 realignment.

The Clarington Official Plan identifies the realignment of Regional Road 17 as illustrated in **Figure 3**. The 2017 Durham TMP was a Region wide study not focussed on the Regional Road 17 realignment; however, it did recommend updating the alignment of North Street in the Regional Official Plan to be consistent with the Clarington Official Plan and draft approved Plans of Subdivision. The Durham TMP proposed constructing the new alignment of North Street from the Canadian Pacific Railway (CPR) crossing to Concession Road 3 and to widen the new alignment where required for turn lanes from 2 to 3 lanes. Extensive public consultation was conducted as part of the Region of Durham's TMP for Region wide improvements. The new Regional Road 17 realigned roadway will be planned as an urban undivided Type B arterial as defined in the Region of Durham's Official Plan and to be confirmed through this EA process.



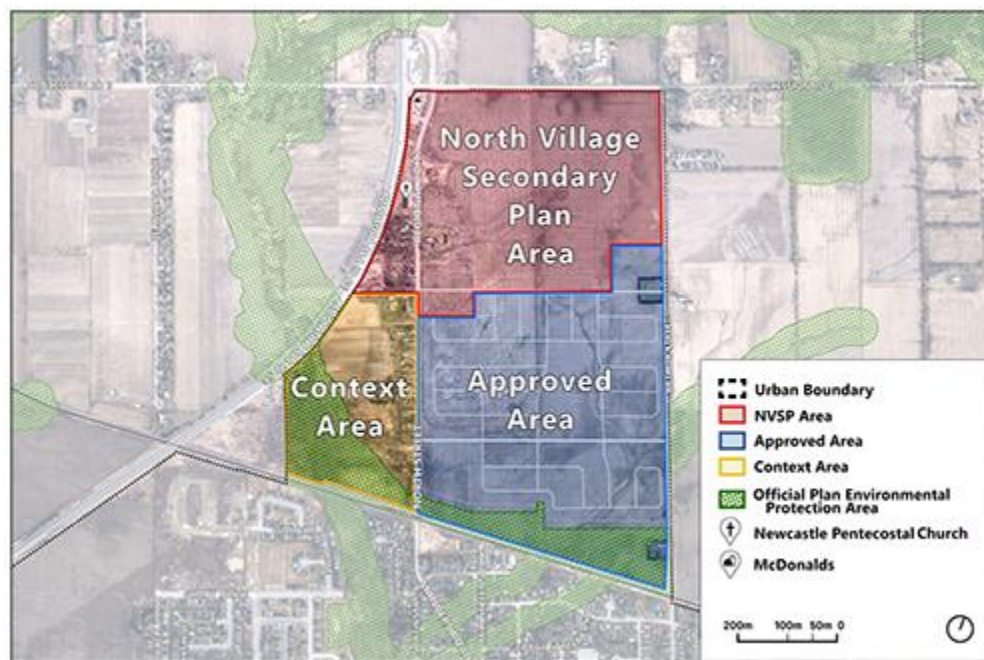
**Figure 3: Municipality of Clarington’s Official Plan Transportation Network**

## 2.2 Additional Studies

### 2.2.1 North Village Secondary Plan

#### 2.2.1.1 Land Use Plan

The Municipality of Clarington was requested by a group of landowners to prepare the North Village Secondary Plan. With input from the public, the Municipality and the landowners prepared the Terms of Reference for the project, which was approved by Council in April 2019. The North Village Secondary Plan project area is located within Newcastle's designated Urban Area. It is bound by Highway 35/115 to the west, Concession Road 3 to the north, Arthur Street to the East, and the Canadian Pacific Railway to the south. It is predominantly composed of farmland, with some rural residential properties, a church, and a fast-food establishment. To the immediate south of the North Village Secondary Plan Area is the council-approved Neighbourhood Design Plan Area, which contains three approved subdivision plans. The Context Area (see **Figure 5**) is not being considered for development at this time; however, it will be considered through the background studies to be undertaken as part of this project.



**Figure 4: North Village Secondary Plan Area**

The North Village Secondary Plan will create a neighbourhood that includes a diverse mix of housing with access to shopping, services, schools and amenities. The urban design of the community will promote healthy and active lifestyles by integrating the mix of land uses with active transportation connections. This new neighbourhood in Newcastle will be designed to include sustainable design elements for homes and stormwater control.

### **2.2.1.2 North Village Internal Transportation Plan and Ongoing Roads EA (Schedule B)**

Within the planned community, there will be local and collector roads that will feed to the arterial road network. These roads are being planned as Schedule B projects under the Municipal Class EA. The Schedule B EA is being completed separately but collaboratively with the Schedule C Regional Road 17 Realignment Study.

### **2.2.2 A Place to Grow: Growth Plan for the Greater Golden Horseshoe**

The Growth Plan for the Greater Golden Horseshoe identifies Durham Region's population capacity forecast of 1,300,000 is expected to occur by 2051. **Figure 5** illustrates the Growth Plan Area.

The new targets will only apply once the Region updates its Official Plan to incorporate the 2019 Growth Plan requirements and assigns intensification and density targets to area municipalities. The Region of Durham is currently updating their Official Plan through the Envision Durham Study and the update is expected to be completed in 2022.



SCHEDULE 1  
 Greater Golden Horseshoe Growth Plan Area

Note: The information displayed on this map is not to scale, does not accurately reflect approved land-use and planning boundaries, and may be out of date. For more information on precise boundaries, the appropriate municipality should be consulted. For more information on Greenbelt Area boundaries, the Greenbelt Plan should be consulted. The Province of Ontario assumes no responsibility or liability for any consequences of any use made of this map.

Figure 5: A Place to Grow: Greater Golder Horseshoe Growth Plan Area

### **2.3 MTO Highway 35/115 Interchange Access Management**

Access management is the process that MTO uses to manage entrances (access connections) and intersections onto provincial highways and roads in the vicinity of a provincial highway, within MTO's permit control area. Access management preserves the safety, efficiency and sustainability of the provincial highways for people and goods movement. MTO's access management objectives help to support: the *Planning Act*; the Provincial Policy Statement; provincial plans, supporting guidelines and legislation; and municipal official plans. Under the *Planning Act*, all municipalities are required to revise and update their Official Plan every 10 years to ensure that it conforms to provincial plans or does not conflict with them, has regard for matters of provincial interest, and is consistent with the Provincial Policy Statement. The corridor designation of provincial highways is to assist municipalities in implementing access management policies in their Official Plans. All Official Plans and decisions affecting a planning matter in Ontario are required to be consistent with the policies set out in the Provincial Policy Statement. The Provincial Policy Statement provides policy direction on matters of provincial interest related to land use planning and development, including specific direction on land use policies that can support access management principles (e.g. protection of major goods movement facilities and corridors and planning in the vicinity of major facilities).

In close proximity to the Study Area, the Province of Ontario operates a Provincial Highway (Highway 35/115) and an interchange with Concession Road 3. MTO has permit control within the designated corridor. Initial comments provided by the MTO are that the Regional Road 17 alignment must be located no less than 300 m from the existing Regional Road 17 (North Street)/ Concession Road intersection.

### **3.0 NEED AND JUSTIFICATION**

#### **3.1 Problem and Opportunity Statement**

The Growth Plan for the Greater Golden Horseshoe identifies that Durham Region's population capacity forecast of 1,300,000 is expected to occur by 2051. Clarington's population and employment is planned to grow by 50,000 people and 15,000 new jobs by 2031, respectively. This growth is reflected in the Clarington TMP's problem statement for future growth. This increase will put pressure on the existing transportation system and will subsequently trigger complementary changes for infrastructure to service the growth areas. Servicing plans for supporting complementary infrastructure will include: water, stormwater facilities, sanitary services and transportation. Transportation improvements to support the development of the North Village Secondary Plan area are the focus of this Integrated EA Study. The geometric design standards for the new arterial road will be used in combination with the land use planning considerations to define constraints for the subsequent community plan development.

Opportunities are available for the Regional Road 17 cross section design to support active transportation within the North Village Secondary Plan development area. The realignment will integrate with the development's network of local streets. Agricultural vehicles and activities will be accommodated in the design.

The Integrated Class EA will obtain environmental clearance for the transportation improvements and establish commitments for implementing the project.

The Regional Road 17 Realignment Integrated Class EA will be integrated with the North Village Secondary Plan in accordance with the *Planning Act*. It will provide adequate spacing between Highway 35/115 and Arthur Street to accommodate the future growth.



## 4.0 STUDY ISSUES

**Transportation:** The existing Regional Road 17 (North Street) and Concession Road 3 intersection is located only 90 m east of Highway 35/115 within MTO's corridor management area. There are concerns as a result of the proximity of the all-way stop to the ramp terminals including:

- Highway safety and operation;
- Safety of all road users, sight lines and operating speeds;
- Safety of emergency vehicles and heavy vehicles making turning movements;
- Accommodating agricultural vehicles;
- Traffic flow and applicable control signage;
- The warrants for provision of traffic signals or a roundabout; and
- Potential for traffic queueing extending onto Highway 35/115, impacting the safety of the provincial highway and MTO's permit control area.

The Municipality and Region have had pre-consultation with MTO. The Ministry has commented that the new alignment of Regional Road 17 must be located 400 m from the Highway 35/115 corridor (minimum 300 m east of the existing North Street/Regional Road 17/Concession Road 3 intersection). This constraint is reflected in the Region's TMP corridor for the Regional Road 17 realignment.

**Land Use:** The Study Area is located within the Newcastle North Secondary Plan Area. The proposed general configuration for the Regional Road 17 realignment was identified in the Regional TMP and the Municipality of Clarington Official Plan. BTE will review all background documents and consult with the North Village Secondary Plan Landowners Group to confirm the realignment and proposed site plans to avoid negative impacts to subdivision design, transportation network, and public realm.

**Social and Cultural Environment:** Considerations for the social/cultural environment will include:

- Maintaining access to the adjacent properties.
- Interface with existing rural properties west of Regional Road 17 and new subdivisions east of Regional Road 17.
- Boulevard design.
- Impacts to the socio-economic environment including impacts to area businesses resulting from the road relocation.
- Mitigation of impacts to property owners during and post construction (i.e. noise, air quality, safety).
- Prioritization for vulnerable road users (i.e. pedestrians, cyclists).
- Potential property impacts to residential, agricultural and commercial properties.
- Landscaping/ streetscaping along the corridor.
- Proximity to Bethel Cemetery.

**Natural Environment:** There are limited natural environmental features within the Study Area. However, consideration will be given to the following:

- Potential for suitable bat nursery roost trees on Concession Road 3.
- Confirmation that no Species at Risk (SAR) trees (e.g. Butternut) are present along the lot line east of the Concession Road 3/Regional Road 17 intersection.

## 5.0 TRAFFIC

The existing intersection at North Street (Regional Road 17) and Concession Road 3 is currently controlled as an all-way stop and is located approximately 80 m east of the intersection of Concession Road 3 with the Highway 35/115 ramp. The close proximity of the intersection to Highway 35/115 will affect road safety as development occurs. As the volume of area traffic increases, the potential for traffic queues to extend onto Highway 35/115 will increase. Realignment of North Street as identified in the Clarington Official Plan to better reflect the Ontario Ministry of Transportation's (MTO's) Access Management Policies will improve safety while accommodating development growth.

The EA Study will also consider the potential need to provide traffic signals or a roundabout at the realigned intersection of North Street and Concession Road 3 as traffic volumes grow. The Region of Durham will be conducting a roundabout pre-screening analysis for this intersection, and a Region of Durham Intersection Control Study may be required to determine the appropriate type of traffic control. Active transportation will also be an important consideration. The Study will also define the reclassification of the remnant Regional Road 17 sections to maintain access to existing development.

The Clarington TMP identified North Street as:

- A spine in the Primary Cycling Network;
- a link in the Trail Network; and
- A transit spine as part of a restructured Durham Region Transit Orono – Newcastle Service.

As an arterial roadway, this Study Design proposes that access be restricted from having driveways directly onto a Regional Road, with consideration of existing driveway access to the realigned portion of Regional Road 17. Access to land will be from future collector roads within the community.

Potential measures to accommodate active transportation include:

- Paved shoulders (preliminary recommendation not to be carried forward as only urban alternatives are under consideration);
- Sidewalk(s); and
- A multi-use path (one or both sides).

## 6.0 PROPOSED INTEGRATED STUDY APPROACH

The Study is using an Integrated Approach to simultaneously complete the land use planning for the North Village Secondary Plan under the *Planning Act* and the Regional Road 17 Realignment under the Municipal Class EA. The Integrated Approach provides the Municipality an opportunity to reduce duplication by simultaneously complying with the *Planning Act*, the Municipal Class EA processes, including public and stakeholder notification, preparation of technical reports and analyses, and land use planning and environmental protection decisions. The Integrated Approach still involves the completion of the procedural requirements for the Municipal Class EA for the Regional Road 17 Realignment and associated network modifications.

The Study Design Report presents an initial description of the problem, potential design alternatives and the process/steps to complete the study. This approach provides for early input from agencies and the public to comment on the process and technical work programs at the study initiation. This document will continue to be described as a draft report and will be updated as comments are provided by the public, Indigenous communities and agencies. The Study Design Report will be finalized after the PIC and posted as final on the study's website. The Municipal Class EA Process is illustrated in **Figure 2**.

### 6.1 Purpose of the Study Design Report

The purpose of this Study Design Report is to:

- Describe the study process that the Municipality proposes to follow for the study and provide for early consultation in the EA process.
- Describe the Integrated Approach (how the Study will be integrated with the North Village Secondary Plan area).
- Describes the sequential decision-making of the land use planning beginning with the Provincial direction under the Growth Plan for the Greater Golden Horseshoe Report (2020) to occur over the planning period to 2031, and subsequent Regional and Clarington's plans to meet these objectives that subsequently defined a more detailed definition of the growth. This growth results in the transportation requirements to service the land use expansion.
- Document, for stakeholder review and comment, the preliminary planning decisions that have been made with respect to:
  - Land use plans for growth in the Municipality of Clarington;
  - Transportation needs associated with the growth;
  - Preliminary identification and screening of Planning Alternatives that have been completed as part of TMP's which completed the initial Phase 1 and 2 components of the Class EA; and
  - Further work to be undertaken in completing Phases 3 and 4 of the Class EA.

- Provide a baseline in moving the study forward following the review and assessment of stakeholder comments. These may include agency, Indigenous community and public comments on the study activities and alternatives expected to be evaluated.

## **7.0 CONSULTATION PROGRAMS**

Consultation will take place throughout the study and the consultation program will comply with the requirements of the *Freedom of Information and Protection of Privacy Act 2009*, and the obligations stipulated in the *Accessibility for Ontarians with Disabilities Act (2005)*.

The public and agency consultation program for this study will include the following:

- Public Notices;
- Draft and Final Study Design Reports;
- External communications/presentations with stakeholders, including ministries, agencies, Indigenous Peoples communities, municipalities and members of the public;
- Two (2) PIC's; and
- Municipality of Clarington's website to provide information to the public.

### **7.1 Public Consultation**

The consultation process will involve all potential stakeholders at all key study milestones. This will include, but is not necessarily limited to the public, community associations, private property owners, businesses and interest groups.

#### **7.1.1 Study Website**

The EA Study will use the Municipality's website ([www.clarington.net/NorthVillage](http://www.clarington.net/NorthVillage)) to post information and allow the public to monitor the study progress. The following will be posted to the website: Notices for the Study Commencement and Completion; PIC; Draft and Final Study Design Report; ESR submission; public information updates; and how to submit comments.

#### **7.1.2 Public Notices**

Notices will be published in the local newspaper Clarington News and posted on the Municipality's website for the study commencement and the PIC. Each notice will announce the date, time and location, identify key information to be presented, request input from interested and affected parties, and invite the public to the PIC. Finally, a Notice of Study Completion will be published announcing the commencement of the 30-day public review period for the ESR.

#### **7.1.3 Public Meetings**

The PIC(s) for the Regional Road 17 Realignment EA Study will be integrated with the North Village Secondary Plan public consultation events. Formal public consultation in the form of one PIC will be conducted at a local and accessible location. Notices of the PIC will be published in the local newspaper along with letters mailed out to agencies, stakeholders, Indigenous Communities and utilities.

With respect to public involvement, the work program proposes the following key meetings:

- The PIC will present:
  - The project goals;
  - Problem and Opportunity Statement;
  - Draft Study Design Report (containing the Work Plan);
  - Assessment of Planning Alternatives;
  - Desktop environmental inventories (constraint mapping);
  - Generation and assessment of Preliminary Design Alternatives (including cross sections and intersections);
  - Detailed environmental inventories for Preliminary Design Alternatives;
  - Evaluation of Preliminary Design Alternatives to select the Technically Preferred Plan;
  - Mitigation Plan; and
  - Property Protection Plan.

**At the time of preparing this Study Design Report, the Municipality is following Provincial restrictions on social gatherings in response to the COVID-19 pandemic. Plans for community engagement events will be customized as required to address these restrictions. The EA team will work with the Ministry of Environment, Conservation and Parks to modify the engagement format reflect the prevailing community restrictions, while still meeting the EA Act requirements.**

## **7.2 Stakeholder Consultation**

### **7.2.1 Municipal and Agency Consultation**

Municipal consultation will be maintained during the study through the North Village Secondary Plan Technical Steering Committee. Meetings will be held at key milestones. Technical Steering Committee participation includes as a minimum, representatives from the Municipality of Clarington, Region of Durham, SvN Architects + Planners (North Village Secondary Plan leads), AECOM and MTO.

### **7.2.2 External Agencies and Regulatory Agencies**

The following agencies will be on a study mailing list, which will be updated and maintained throughout the study:

- Ministry of the Environment, Conservation and Parks
- Ministry of Heritage, Sport, Tourism and Culture Industries
- Ministry of Northern Development, Mines, Natural Resources and Forestry
- Ministry of Agriculture, Food and Rural
- Ministry of Community and Social Services
- Ministry of Municipal Affairs and Housing
- Ministry of Energy
- Ministry of Infrastructure
- Ministry of Community Safety and

- |  |  |
|--|--|
| <p>Affairs</p> <ul style="list-style-type: none"><li>• Ministry of Indigenous Affairs</li><li>• Crown-Indigenous Relations and Northern Affairs Canada</li></ul> | <p>Correctional Services</p> <ul style="list-style-type: none"><li>• Ontario Provincial Police</li></ul> |
|--|--|

### **7.2.3 Indigenous Peoples Consultation**

The Municipality of Clarington has a constitutional duty to consult with Indigenous Peoples with traditional land use or interests within the Study Area. Clear, effective and timely consultation with Indigenous Peoples is essential to ensure the success of the project. This will include:

- Identification of interested/affected Indigenous Peoples early in the decision-making process;
- Distribution and notification of relevant project-related information, including the Class EA process, environmental inventories, potential alternatives and impacts;
- Early identification of concerns and issues;
- Understanding of potential risk and impacts of the Study on Indigenous Peoples' interests;
- Development of mutually acceptable solutions involving Indigenous Communities;
- Ensuring regulatory compliance throughout the Class EA process; and
- Indigenous Communities will be consulted during the Study and offered, at their request, meetings with their communities. The Ministry of the Environment, Conservation and Parks will be consulted to ensure all Indigenous Peoples with an interest are contacted.



## **8.0 ALTERNATIVE PLANNING SOLUTIONS (PLANNING ALTERNATIVES)**

### **8.1 Description of Alternative Planning Solutions (Planning Alternatives)**

Alternative Planning Solutions represent alternative ways or methods of addressing the problem to be solved by the project. These reflect different strategies and include the “Do Nothing” approach (maintaining the status quo). Following the assessment of Alternative Planning Solutions, those alternatives judged to address the Problem Statement will be carried forward and will form the Recommended Planning Solution. The Recommended Planning Solution will provide the best overall balance between transportation performance, safety, and life cycle costs, and environmental, cultural, socio-economic, and land use planning objectives.

The Alternative Planning Solutions for this Study are summarized as follows:

1. Do Nothing - The Do Nothing Alternative must be considered as mandated by the Class EA. It represents a baseline from which other approaches can be compared.
2. Limit Land Use Development – This strategy would maintain existing demand within the Municipality of Clarington by limiting development and area growth.
3. Allow Land Use Development with Realignment of Regional Road 17 – This strategy would realign Regional Road 17 to improve operations and accommodate future land use development.

The evaluation of Planning Alternatives selects the alternative(s) that best addresses the Problem and Opportunity Statement.

The Do Nothing and Limit Land Use Development Alternatives do not address the Problem Statement and are not recommended to be carried forward. The alternative Allow Land Use Development with Realignment of Regional Road 17 is recommended as the preferred Alternative Planning Solution as it addresses future growth planned by the Region and Municipality, and accommodates MTO’s requirement to increase the separation between Highway 35/115 and Regional Road 17. This is consistent with the Region of Durham’s TMP (2017) that completed Phases 1 and 2 of the Municipal Class EA.

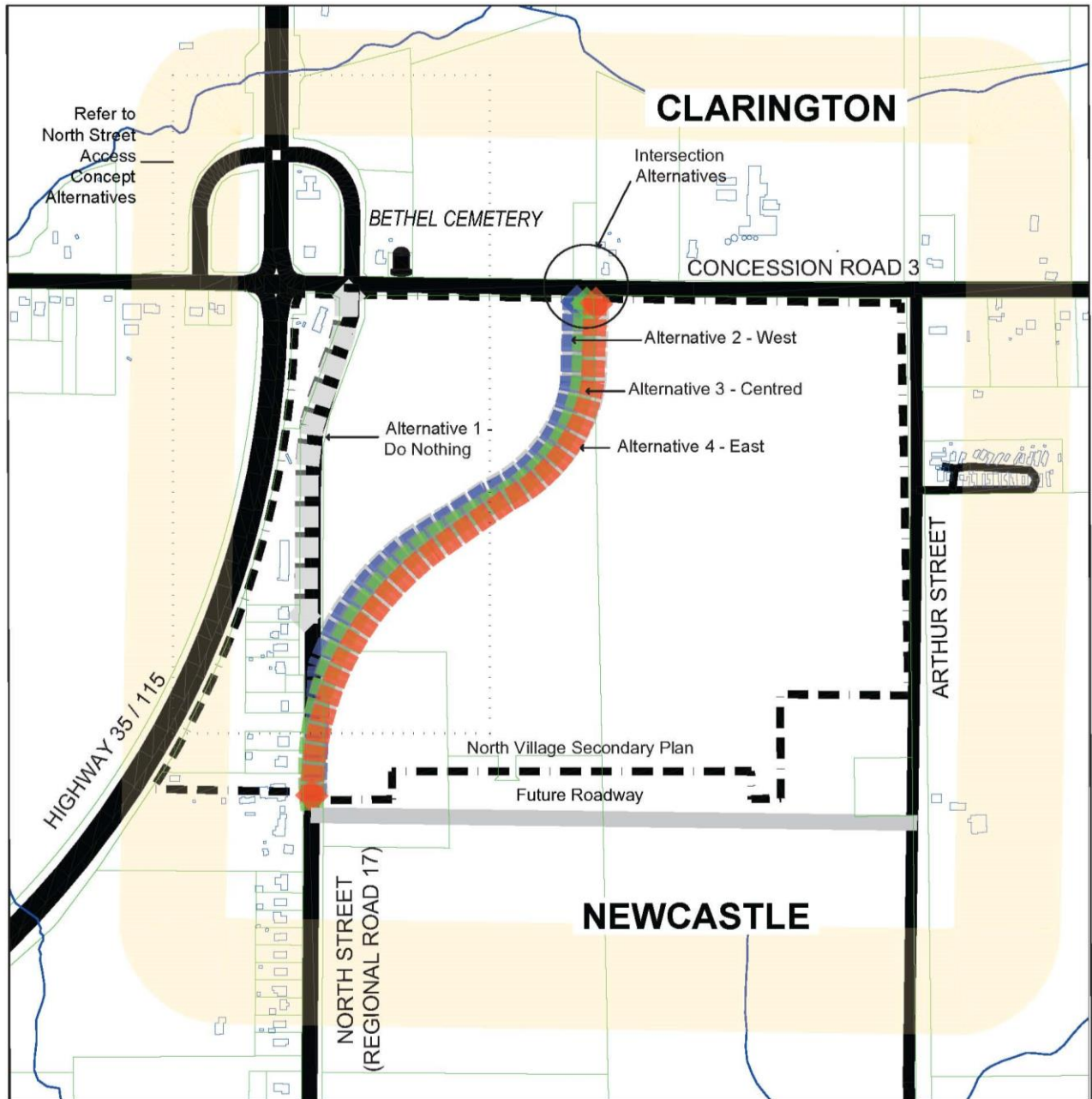
## **9.0 PRELIMINARY DESIGN ALTERNATIVES**

This section describes Preliminary Design Alternatives for implementing the recommended Planning Alternative to realign Regional Road 17 between Concession Road 3 and the southern limit of the Approved Lands in the North Village Secondary Plan Area. The EA will identify the preferred alignment, intersection treatments and cross section alternatives for the realignment. The alternatives will be developed and evaluated, and presented to the public for comments. The alternatives carried forward for evaluation may include refinements or sub-alternatives based on the comments received and the identified environmental factors and effects.

### **Alignment Alternatives**

Although the TMP has identified a general alignment for the road extension, this EA Study will develop the geometric design elements including horizontal curves and intersection with Concession Road 3. Alignment alternatives will consider the Do Nothing alternative as well as the TMP alignment (which may vary slightly), see **Figure 6**. Alignments will consider horizontal curvature for a 60 km/h design speed and a 70 km/h design speed.

The location of any new collector and/or local road intersections with Regional Road 17 will need to consider the alignment, sight distances, intersection spacing, etc. on the Regional Road.



Municipality of Clarington  
 Integrated Environmental Assessment Study  
**Regional Road 17 Broad Band Corridor Alternatives**

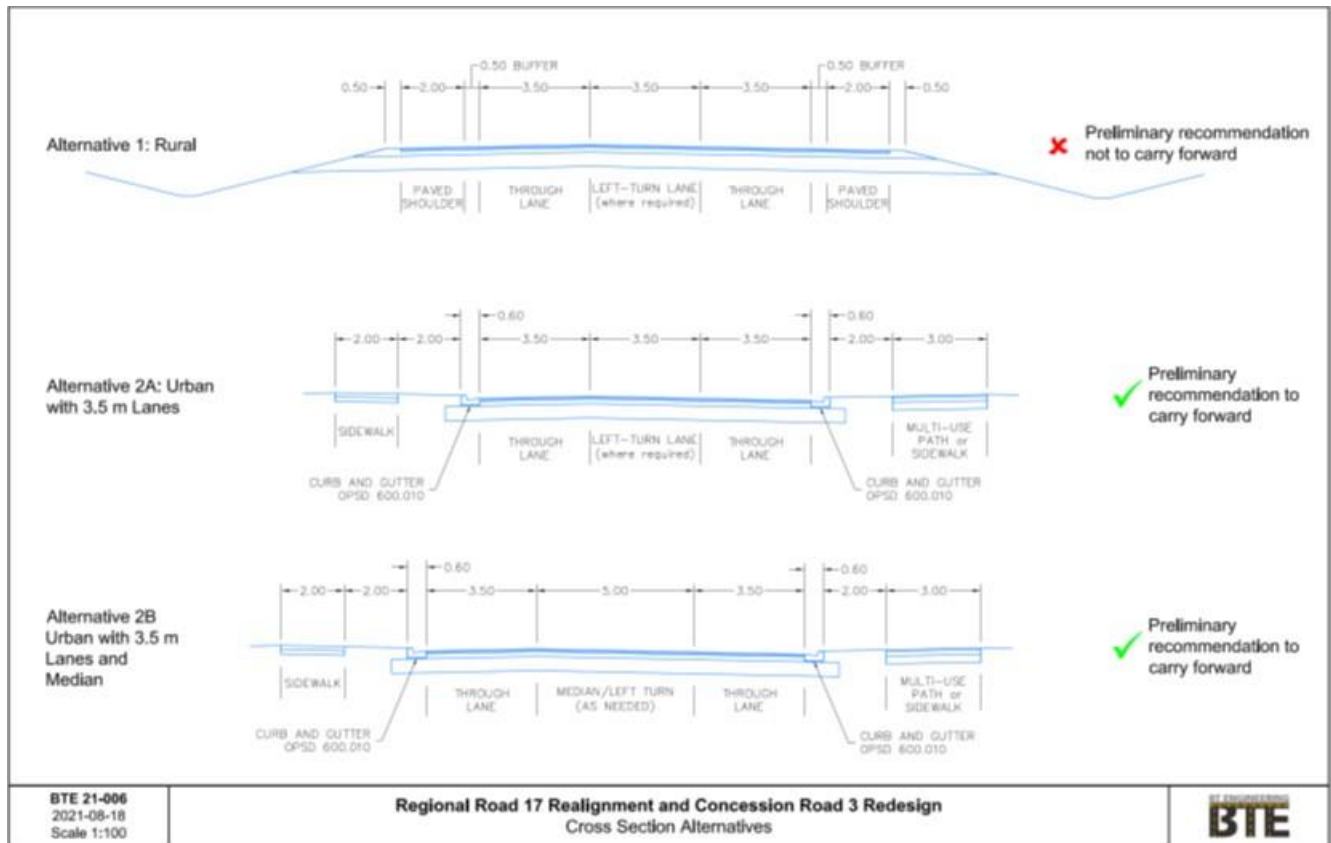
- |            |                                   |
|------------|-----------------------------------|
| Study Area | North Village Secondary Plan Area |
| Building   | Lot Lines                         |
|            | Watercourse                       |



**Figure 6: Alignment Alternatives**

### Cross Section Alternatives

The study will consider a 2-lane and 3-lane urban cross section including auxiliary lanes as well as elements to accommodate active modes of transportation. The right-of-way widths will consider active transportation features that may include: paved shoulders, sidewalk(s), or a multi-use pathway (one or both sides). Cross section alternatives to be considered are illustrated in **Figure 7**. A preliminary recommendation is that Alternative 1 (rural cross section) not be carried forward as it requires greater land area to implement and induces higher operating speeds. The Study Design proposes that the road design reflect the alignment and lane standards of the Region of Durham and Transportation Association of Canada for urban roadways considering curve radii and superelevation rates of 4% maximum.



**Figure 7: Preliminary Cross Section Alternatives 1, 2A and 2B**

### Intersection Alternatives

The study will consider unsignalized, signalized and roundabout intersection control. These alternatives will accommodate commercial and agricultural vehicles. The study will identify any modifications required on Concession Road 3 to accommodate the new Regional Road 17 intersection.

### **Remnant Regional Road 17 Section**

Existing development on the Regional Road 17 will maintain connectivity to the road network/realigned Regional Road 17 providing access to commercial and residential properties. Alternatives will consider:

- Driveway onto a new local street;
- Driveway onto the realigned Regional Road 17;
- Driveway onto Concession Road 3 (commercial property); and
- Driveway onto local street (commercial and/or institutional property).

### **Operational Improvements**

Operational improvements to the Highway 35/115 ramp terminal will be investigated.

## 10.0 WORK PROGRAM

The major elements of the work program are described in the following sections.

**Project Start-Up:** Upon initiation of the project, the Project Team will: review study scope; budget and schedule; establish membership, meeting dates and roles and responsibilities; review the Notice of Study Commencement; and prepare all required agreements. The Project Team will provide guidance into the technical elements of the study including the study issues, data collection, and weighting of factors and the evaluation of alternatives.

**Information Gathering:** The collection and organization of the data necessary for the analysis, evaluation and design activities will include: assembly and review of study materials; field reviews and the collection of photographs to maintain a visual record of existing conditions; collect reports and modelling data/output from the Municipality; gather existing natural/social environmental inventories and stormwater reports; and review of existing and projected traffic volumes as identified in any area traffic studies. The Regional TMP will be reviewed to confirm that Phases 1 and 2 of the Municipal Class Environmental Assessment have been successfully completed. Any information gaps will be identified and addressed during Phases 3 and 4 of the Study.

**Draft and Final Study Design Report:** This Draft Study Design describes the intended approach in completing the EA component of this assignment. This will be finalized after the initial PIC to collect comments from stakeholders.

**Traffic/Transportation Analysis:** The transportation analysis will build upon the previous work that has been completed. This will examine, in greater detail, the operational implications of existing and projected traffic demands and the distribution of traffic resulting from the planned developments. In this regard, the transportation analysis will involve the following key tasks:

- Documentation of the existing profile of road users including all modes of travel (vehicular, bicycles, pedestrians, trucks and emergency services);
- Analysis of horizon year traffic volume forecasts, and identification of level of service for roadway links and intersections (building and documenting on previous forecasts) for any planned transportation network changes;
- Examination of area collision histories to identify areas of concern and possible improvement opportunities;
- Identification of existing /future operational problems and timelines for the need for additional capacity in the transportation network;
- Signal warrant analysis;
- Provide input describing the performance of each alternative (traffic operation and safety); and
- Confirmation of the need and justification for roadway improvements and timing.

This analysis will be summarized in a Traffic/Transportation Report.

### **Phase 1: Environmental Inventories and Technical Investigations**

The environmental inventories and technical investigations will rely upon the previously completed studies conducted by AECOM for the North Village Secondary Plan. These studies will be reviewed for completeness and updated, should additional inventories or investigations be required.

### **Phase 2: Identification, Assessment and Evaluation of Alternative Solutions**

Phases 1 and 2 of the Class EA process was documented in the Regional TMP, including the assessment and evaluation of alternatives. Alternative solutions considered as part of TMP are reviewed in this Study Design report. The validation of the TMP conclusions will be presented for public and agency review and comment.

### **Phase 3: Alternative Design Concepts for the Preferred Solution**

The consideration of all reasonable alternatives is a guiding principle for EA studies. The roadway alignment, cross section and intersection alternatives will be generated through discussions with the Municipality, Project Team, agencies and the general public.

This study will include a systematic, traceable analysis and evaluation of alternatives and a comprehensive public consultation program which will assist in the development of a Recommended Plan.

The identification of evaluation criteria will include potential factors such as compatibility with land use plans, roadway level of service, traffic safety, accessibility, property impacts, natural environment, technical aspects/construction complexity and implementation.

Based on the evaluation results, a Technically Preferred Alternative will be selected that includes an integration of the associated land use plan. A technical memorandum outlining the results of the evaluation will be completed and will include: the assessment of planning alternatives; generation and assessment of preliminary design alternatives (road and land use plans); evaluation criteria; selection of the Technically Preferred Alternative; and alternative refinements to the Technically Preferred Alternative (if applicable).

The Technically Preferred Alternative will consider the requirements for auxiliary lanes, intersection control (i.e. traffic signals) and appropriate access management (i.e. left turn restrictions).

### **Phase 4: ESR**

The preparation of the draft and final report will follow the format and content for a Integrated ESR accepted by MECP. The ESR will document the study methodology, findings, public involvement and recommendations. A draft version will be submitted to the Municipality and external review agencies prior to the preparation of the final document. A presentation will be made to Council or Committee if required.

- **Public Review of Integrated ESR:** The public will be notified of the availability of the ESR for review. Individual letters (or emails) will be sent to persons/ organizations on the contact lists maintained throughout the course of the study. The Integrated ESR will be made available at several convenient locations for the public review or online (subject to Provincial restrictions related to the COVID-19 pandemic).



## **11.0 PRELIMINARY SCHEDULE**

A draft schedule for this Study is shown below in **Table 1**.

**Table 1: Draft Integrated Study Schedule**

Task	Study	2019-2020	2021						Winter-Fall 2022				
			Winter	Spring/Summer		Fall							
Study Commencement (Completed 2019)	NVSP												
PIC No. 1 (public meeting 2019)	NVSP												
Opportunities and Constraints Analysis	NVSP												
Technical Advisory Committee Project Initiation Meeting	RR17												
Coordination with Development Area Internal Roads EA	NVSP/RR17												
Information Gathering	RR17												
Draft Study Design Report	RR17												
Draft Design Criteria (Regional Road 17)	RR17												
Integrated Class EA Study Commencement Notice and public release of Draft Study Design Report for stakeholder review)	NVSP/RR17												
Draft Urban Design and Sustainability Development Principles	NVSP												
Traffic Analysis	RR17												
Environmental Inventories	RR17												
Develop Integrated Roadway and Land Use Alternatives	RR17												
PIC No. 2 (Present Integrated Alternatives for Public and Agency Review)	NVSP/RR17												
Technical Investigations and Refinements based on comments received	RR17												
Analysis and Evaluation of Integrated Land Use/Transportation Alternatives	NVSP/RR17												
Alternative Land Use Plans Report	NVSP												
Selection of Technically Preferred Alternative (TPA)	RR17												
PIC No. 3 (Present TPA and Mitigation Plan for Residual Effects)	NVSP/RR17												
Refinements of TPA	RR17												
Selection of Recommended Plan	RR17												
Draft Integrated ESR	RR17												
Final Integrated ESR	RR17												
Integrated Notice of Study Completion	RR17												
30-day Public Review of ESR	RR17												
Future Planning Steps for North Village Secondary Plan, including 2 additional PICs	NVSP												

**Legend:**

NVSP – North Village Secondary Plan Tasks

RR17 – Regional Road 17 Realignment EA Study Tasks

NVSP/RR17 – North Village Secondary Plan and Regional Road 17 Realignment EA Integrated Study Tasks

## GLOSSARY OF TERMS

- 
- **AADT** Annual Average Daily Traffic – the average 24-hour, two-way traffic per day for the period from January 1st to December 31st.
- 
- **Alignment** The vertical and horizontal position of a road.
- 
- **Alternative** Well-defined and distinct course of action that fulfils a given set of requirements. The EA Act distinguishes between alternatives to the undertaking and alternative methods of carrying out the undertaking.
- 
- **Alternative Project** Alternative Planning Solutions, see above.
- 
- **Bump-Up / Part II Order** The act of requesting that an environmental assessment, initiated as a Class EA, to be undertaken as an Individual EA process when potential adverse impacts to constitutionally protected Aboriginal and treaty rights may or has occurred. The change is a result of a decision by the Minister of Environment to require that an individual environmental assessment be conducted.
- 
- **Canadian Environmental Assessment Act (CEAA)** The CEAA applies to projects for which the federal government holds decision-making authority. It is legislation that identifies the responsibilities and procedures for the environmental assessment.
- 
- **Class Environmental Assessment Document** An individual environmental report documenting a planning process which is formally submitted under the EA Act. Once the Class EA document was approved, projects covered by the class can be implemented without having to seek further approvals under the EA Act provided the Class EA process is followed.
- 
- **Class Environmental Assessment Process** A planning process established for a group of projects in order to ensure compliance with the Environmental Assessment (EA) Act. The EA Act, in Section 13 makes provision for the establishment of Class Environmental Assessments.

- 
- **Corridor** A band of variable width between two locations. In transportation studies a corridor is a defined area where a new or improved transportation facility might be located.
- 
- **Criterion** Explicit feature or consideration used for comparison of alternatives.
- 
- **Cumulative Effects Assessment** Cumulative Effects Assessment assesses the interaction and combination of the residual environmental effects of the project during its construction and operational phases on measures to prevent or lessen the predicted impacts with the same environmental effects from other past, present, and reasonably foreseeable future projects and activities.
- 
- **Detail Design** The final stage in the design process in which the engineering and environmental components of preliminary design are refined and details concerning, for example, property, drainage, utility relocations and quantity estimate requirements are prepared, and contract documents and drawings are produced.
- 
- **DFO** Department of Fisheries and Oceans.
- 
- **EA** Environmental Assessment (used in the context of a report)
- 
- **EA Act** Ontario Environmental Assessment Act, RSO 1990 c. E.18 (as amended July 21, 2020).
- 
- **Environment**
    - Air, land or water,
    - Plant and animal life, including human life,
    - The social, economic and cultural conditions that influence the life of humans or a community,
    - Any building structure, machine or other device or thing made by humans,
    - Any solid, liquid, gas, odour, heat, sound, vibration or radiation resulting directly or indirectly from human activities, or

- Any part or combination of the foregoing and the interrelationships between any two or more of them, in or of Ontario.

<ul style="list-style-type: none"> <li>• <b>Environmental Effect</b></li> </ul>	<p>A change in the existing conditions of the environment which may have either beneficial (positive) or detrimental (negative) effects.</p>
<ul style="list-style-type: none"> <li>• <b>ESR</b></li> </ul>	<p>Environmental Study Report. The final documentation for a Municipal Class EA Schedule C project, defining the project, consultation process, preferred solution and mitigation measures.</p>
<ul style="list-style-type: none"> <li>• <b>Evaluation</b></li> </ul>	<p>The outcome of a process that appraises the advantages and disadvantages of alternatives.</p>
<ul style="list-style-type: none"> <li>• <b>Evaluation Process</b></li> </ul>	<p>The process involving the identification of criteria, rating of predicted impacts, assignment of weights to criteria, and aggregation of weights, rates and criteria to produce an ordering of alternatives.</p>
<ul style="list-style-type: none"> <li>• <b>External Agencies</b></li> </ul>	<p>Include Federal departments and agencies, Provincial ministries and agencies, conservation authorities, municipalities, Crown corporations or other agencies other than MTO.</p>
<ul style="list-style-type: none"> <li>• <b>Factor</b></li> </ul>	<p>A category of sub-factors.</p>
<ul style="list-style-type: none"> <li>• <b>General Arrangement</b></li> </ul>	<p>Structural plan of the bridge and proposed works including elevations and cross sectional views of the bridge.</p>
<ul style="list-style-type: none"> <li>• <b>Integrated Environmental Assessment</b></li> </ul>	<p>An Environmental Assessment conducted in accordance with the Municipal Class EA and the <i>Planning Act</i>.</p>
<ul style="list-style-type: none"> <li>• <b>Individual Environmental Assessment</b></li> </ul>	<p>An Environmental Assessment requiring the submission of a document for approval by the Minister, pursuant to the EA Act and which is neither exempt from the EA Act nor covered by a Class EA approval.</p>
<ul style="list-style-type: none"> <li>• <b>Integrated Class Environmental Assessment</b></li> </ul>	<p>The Integrated Approach is used to simultaneously complete the land use planning for a study under</p>

the *Planning Act* and a road planning study under the *Municipal Class EA*. The Integrated Approach provides the Municipality an opportunity to reduce duplication by simultaneously complying with the *Planning Act* and *Municipal Class EA* processes, including public and stakeholder notification, preparation of technical reports and analyses, and land use planning and environmental protection decisions.

• <b>MECP</b>	Ministry of the Environment, Conservation and Parks.
• <b>MHSTCI</b>	Ministry of Heritage, Sport, Tourism and Culture Industries.
• <b>Mitigating Measure</b>	A measure that is incorporated into a project to reduce, eliminate or ameliorate detrimental environmental effects.
• <b>Mitigation</b>	Taking actions that either remove or alleviate to some degree the negative impacts associated with the implementation of alternatives.
• <b>MNDMNR</b>	Ministry of Northern Development, Mines, Natural Resources and Forestry.
• <b>MTO</b>	Ministry of Transportation Ontario.
• <b>NSA</b>	Noise Sensitive Areas
• <b>NVSP</b>	North Village Secondary Plan
• <b>OP</b>	Official Plan
• <b>PIC</b>	Public Information Centre
• <b>Planning Act</b>	Planning Act, R.S.O. 1990 c. P.13. is a provincial legislation that sets out the ground rules for land use planning in Ontario. It describes how land uses may be controlled, and who may control them.
• <b>Planning Alternatives</b>	Planning alternatives are “alternative planning solutions” under the EA Act. Identification of significantly different transportation engineering opportunities while protecting significant

environmental features as much as possible.

- **Preliminary Design Alternatives** Preliminary Design Alternatives are “alternative methods “ of carrying out the selected planning solution while maximizing social and transportation benefits while protecting significant environmental features as much as possible.
- **Project** A specific undertaking planned and implemented in accordance with the Class EA including all those activities necessary to solve a specific problem.
- **Proponent** A person or agency that carries or proposes to carry out an undertaking, or is the owner or person having charge, management, or control of an undertaking.
- **Public** Includes the general public, interest groups, associates, community groups, and individuals, including property owners.
- **Realignment** Replacement or upgrading of an existing roadway on a new or revised alignment.
- **Recommended Plan** That part of the planning and design process, during which various alternative solutions are examined and evaluated including consideration of environmental effects and mitigation; the recommended design solution is then developed in sufficient detail to ensure that the horizontal and vertical controls are physically compatible with the proposed site, that the requirements of lands and rights-of-way are satisfactorily identified, and that the basic design criteria or features to be contained in the design, have been fully recognized and documented in sufficient graphic detail to ensure their feasibility.
- **RR** Regional Road
- **SAR** Species At Risk
- **Screening** Process of eliminating alternatives from further consideration, which do not meet minimum conditions or categorical requirements.

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• <b>SDR</b>	Study Design Report.
• <b>Sub-factor</b>	A single criterion used for the evaluation. Each sub-factor is grouped under one of the global factors.
• <b>TESR</b>	Transportation Environmental Study Report. The final MTO documentation for a Group B project, defining the project, consultation process, preferred solution and mitigation measures.
• <b>TIS</b>	Traffic Impact Study
• <b>TMP</b>	Transportation Master Plan
• <b>TPA</b>	Technically Preferred Alternative
• <b>TPP</b>	Technically Preferred Plan
• <b>Traceability</b>	Characteristics of an evaluation process which enables its development and implementation to be followed with ease.
• <b>TSC</b>	Technical Steering Committee. The TSC will include the approving agencies and Consultants. It will act as the decision-making body for the study recommendations.

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