P.O. Box 1749
Halifax, Nova Scotia
B3J 3A5 Canada

Item No. 12.1.1
Transportation Standing Committee
June 28, 2018

TO: Chair and Members of Transportation Standing Committee

SUBMITTED BY: Original Signed

Bruce Zvaniga, P.Eng., Director, Transportation and Public Works

Original Signed

Jacques Dubé, Chief Administrative Officer

DATE: May 16, 2018

SUBJECT: **Strategic Road Safety Plan**

ORIGIN

Committee of the Whole - Budget January 27, 2016, Item 4 Transportation Public Works Budget and Business Plan.

LEGISLATIVE AUTHORITY

Halifax Regional Municipality Charter (HRM Charter), Part XII, subsection 318(2), "In so far as is consistent with their use by the public, the Council has full control over the streets in the Municipality."

Transportation Standing Committee Terms of Reference – Schedule 7 to Administrative Order One Section 4(g) states, "the Transportation Standing Committee shall oversee and review the Municipality's Regional Transportation Plans and initiatives as follows: …(g) providing input and review of road and pedestrian safety."

RECOMMENDATION

It is recommended that the Transportation Standing Committee recommend that Regional Council:

1. Adopt the Strategic Road Safety Plan included in Attachment 1, and endorse the vision and goals identified through the data analysis, public survey and stakeholder engagement process;
2. Direct staff to move forward with the next steps required to acquire the foundational data analytic tools, develop action plans and implement the Strategic Road Safety Plan;
3. Direct staff to provide annual information reports to Transportation Standing Committee regarding the implementation of the Strategic Road Safety Plan.

BACKGROUND

The need for a road safety strategy was identified in TPW's 2016/17 Business Plan. The Strategic Road Safety Plan (SRSP) will set out safety goals, objectives and action plans to guide the Municipality and its road safety partners towards creating safer roads and reducing the number of fatal and injury collisions.

Action #4 of Halifax's recently adopted Integrated Mobility Plan (IMP) provides direction to "Implement multidisciplinary safety strategies including the Strategic Road Safety Plan, to maximize the safety and security of all people on the street, with an emphasis on the most vulnerable users." (see page 43 of the Integrated Mobility Plan).

A consultant, CIMA+, was selected through a competitive RFP process and the project began in March 2017. An interim report was submitted to Transportation Standing Committee on December 7, 2017 (Information Item No. 2).

The SRSP was prepared to align with Regional Council's values, which will continue to be front of mind during the implementation of the plan.

Evidence Based Decision Making: Developing action plans to enhance road safety and achieve our overall goal must be based on collision data, using best practices to conduct data analysis.
Collaborative Approach: Ongoing engagement between government and community stakeholders to ensure that we are successful in achieving our goals.
Equitable Approach: Community engagement efforts must be inclusive and meaningful. Demographic data should be considered when prioritizing projects for implementation.
Continuous Evaluation: The SRSP is a living document that should be revisited on a regular basis and amended as necessary. The SRSP team can add, remove, or revise strategies and countermeasures over time so the action plan remains relevant.

DISCUSSION

Staff, Regional Council, Stakeholders and the public expect to be safe from collisions and injuries while using HRM roads. It is important to note that the SRSP does not provide site-specific recommendations. The SRSP provides the foundation work that is required to build a culture of road safety. The SRSP will give staff the tools required to identify and prioritize both site-specific and broad system-wide changes necessary to reduce the number and severity of collisions in HRM.

The SRSP is intended as a living document for guiding the safety management process and not as a reference manual for looking up technical details.

Figure No. 1 summarizes the project methodology and workflow that was followed during the development of HRM's SRSP. This methodology was modified from the US Federal Highway Administration (FHWA) guides which were prepared to help departments of transportation develop their strategic plans.

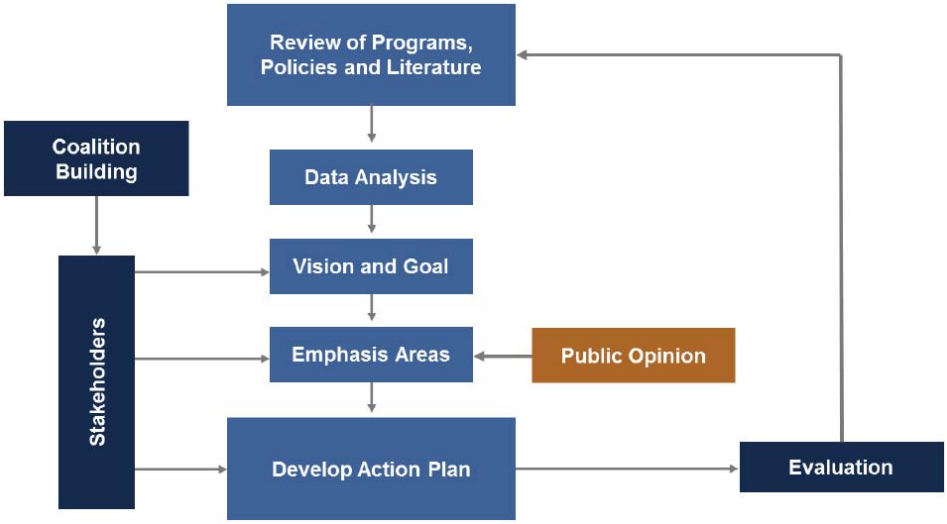


Figure No. 1: HRM SRSP Project Methodology

Review of Programs, Policies and Literature

The SRSP concept is a well-proven approach to improving road safety that has been implemented successfully at the provincial, state, and municipal levels across North America. In Canada, several provinces (including Alberta, and Quebec) and municipalities (including Ottawa, Toronto, Hamilton, London, Edmonton, and Calgary) have adopted a SRSP, or a variation of it.

The consultant conducted a comprehensive review of similar projects completed in Canada and in other international jurisdictions. The literature review was conducted to give a better understanding of lessons learned by others, as it is important to leverage the experience gained by other jurisdictions. The consultant also reviewed HRM's current road safety initiatives.

Coalition Building

The development of HRM's SRSP was, and will continue to be, a collaborative process where feedback and input of the stakeholders is critical to the success of the study. The project team built a coalition of stakeholders who contribute to safety in the HRM. As the project moves forward with implementation and the development of action plans, stakeholders will continue to be involved based on their ability to deliver programs.

Two workshops were held with various stakeholders during the development of the SRSP. The stakeholders were asked to provide input and feedback on the direction of the plan and to commit to continued participation in the implementation of the plan.

The following stakeholders participated in one or both workshops carried out during the development of the SRSP:

Figure No. 2: Project Stakeholders

Vision and Goal

A SRSP requires a clear set of objectives to guide the process. These objectives are typically stated in terms of a vision and a goal. The vision defines the organization's longer-term view of where it would like to be positioned following successful implementation of the program. The vision should be a high-level, long-range ideal, which provides the framework for the SRSP.

In recent years a variation of the SRSP concept that has become popular is Vision Zero. Vision Zero started in Sweden in 1997 with the premise that *no loss of life is acceptable* and, as such, the goal of that concept is to achieve zero fatalities and injuries. The Vision Zero approach requires significant cultural and legislative changes in the approach taken towards traffic and road safety, road design, enforcement, and education of road users. Vision Zero was introduced recently in North America with several jurisdictions adopting the approach, including Toronto, Edmonton, New York, and Washington D.C., and the early results have been promising.

Other jurisdictions have understood the concept of Vision Zero but have also recognized that achieving this idealistic and aspirational vision requires an intermediate step of first going Towards Zero. Towards Zero is a variation of Vision Zero, with a greater focus on the short term action plans, but with the same understanding that *any and all traffic injuries and deaths are unacceptable*.

Canada's Road Safety Strategy 2025 has adopted the concept of Towards Zero. Federal Highway Administration (FHWA) in the US and its state and other federal partners have adopted Road to Zero which is an alternative term to Towards Zero.

During Workshop #1, the following vision was developed for HRM's SRSP:

Vision: ***Moving Towards Zero Fatalities and Injuries for People Using Any Mode of Transportation.***

The goal, which is the more concrete, shorter-term objective, flows from the vision. Goals are typically chosen to be difficult, but with a reasonable expectation that they can be achieved. Well-chosen goals will result in the team having success, which will encourage further safety efforts, and will create support by the public of the team's efforts.

The typical goal for Canadian municipalities with strategic road safety programs (Hamilton, London, Peel), is a 10-15% reduction over five years. Calgary aims at a 10% reduction of fatal and serious injury collision rates in five years. Edmonton with a large program staffed with dedicated full-time safety professionals for

many years has overachieved its initial goals and has reset its latest goal at a 30% reduction in collision rate over the next five years (based on population). The scale of the program and number of dedicated resources is different from the typical strategic road safety program and from HRM's current situation.

The goal for the SRSP was discussed in detail during both workshops. The consultant initially proposed a 10% reduction in fatal and serious injury collisions within five years. TPW staff chose to challenge that goal and suggested a 15% reduction in fatal and injury collisions within five years. Aggressive goals, ranging from 50% - 75% reduction in 5 years were proposed by some stakeholders.

Based on the extensive discussions held during the two workshops, as well as the information obtained from the literature review, the following goal was set for HRM's SRSP:

Goal: ***15% reduction of fatal and injury collisions within five years (2018-2023)***

The choice of a 15% reduction in fatal and injury collisions over five years may appear to be a modest goal but, in fact, it will not be easily achieved. There are a number of reasons for this. The Municipality is just starting this program. It does not currently have an established road safety committee and will have partners for whom this will be the first occasion of working towards road safety goals. Funding and support for programs will have to be obtained, implemented and sustained. Also, despite the recent downward trend in collisions, there is generally upward pressure due to increasing population and traffic congestion. While the reference point for the 15% is to a fixed previous year, the collisions would likely be increasing without the SRSP, meaning that the achievement is actually more than 15%. Finally, if the plan is overachieving it is easy to reset the goal to challenge the team to do more.

Emphasis Areas

Emphasis areas are high priority areas that are expected to provide the best opportunities for improved safety. To achieve the goal identified for the plan, the Municipality should allocate resources to action plans targeted specifically at these areas.

Emphasis areas have been selected for this SRSP based on data analysis and public opinion.

Data Analysis

The SRSP is a data-driven process and collision analysis forms a crucial step of the project. This study analyzed fatal and injury collisions from 2007 to 2014 using data provided by the Nova Scotia Department of Transportation and Infrastructure Renewal (NSTIR) and the Dalhousie Transportation Collaboratory.

The collision analyses conducted as part of the SRSP were not location specific. The objective of analysis was to identify a type of collision (e.g. angle), a behaviour resulting in collisions (e.g. aggressive driving), a specific demographic (e.g. young drivers), a facility type within the transportation network (e.g. intersections), or modes of transportation (e.g. walking, bicycling, trucks) that constitute large frequencies of fatal or injury collisions. These groups become potential emphasis areas.

Results of the collision analysis are summarized in Figure No. 3.

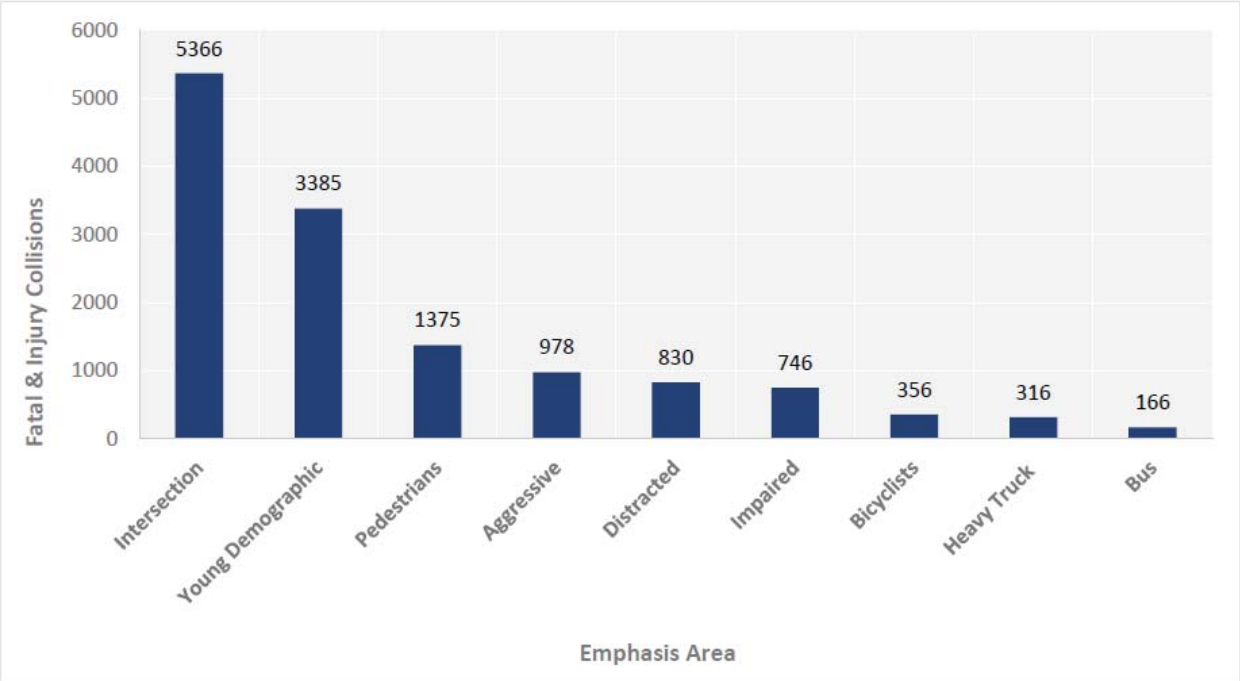


Figure No. 3: Collision Analysis Results (2007-2014 combined)

It is important to note that the collisions reported in the above figure might have overlaps. For example, if a pedestrian were involved in a collision with a truck at an intersection, that collision would have been included in pedestrian collisions, truck collisions, and intersection related collisions.

Public Opinion

The consultant developed a survey to gauge public's opinion about the perception of road safety in HRM. The results of the public opinion survey were analyzed to identify potential emphasis areas.

Results

The top emphasis areas, in descending order of importance, determined by the collision analysis and the public opinion survey are summarized below. There was a very good correlation between the two.

Data Analysis	Public Opinion
Intersections	Distracted Driving
Young Demographic	Impaired Driving
Pedestrians	Pedestrians
Aggressive Driving	Aggressive Driving
Distracted Driving	Intersections
Impaired Driving	Bicyclists
Bicyclists	School Zones
Heavy Trucks	Buses
Buses	Motorcycle Collisions

Based on the results of the collision data analysis, the public opinion survey and discussions with stakeholders during Workshop #1, the following seven emphasis areas were selected for HRM's SRSP:

Emphasis Areas: ***Intersection Related Collisions, Young Demographic, Pedestrian Collisions, Aggressive Driving, Distracted Driving, Impaired Driving, Bicyclist Collisions.***

Action Plans

HRM has set an aggressive goal for the reduction of fatal and injury collisions over the next five years. If the current safety efforts by the HRM and its partner agencies are maintained but not altered, the likelihood that a significant reduction in either number or severity will be achieved is low. To succeed in achieving the SRSP goals, some existing resources will have to be reassigned and additional resources may be required.

Towards Zero Task Force

The first step to implement the SRSP is to establish a Towards Zero Task Force who will be the voice of the vision and traffic safety culture throughout HRM. This task force will be a multi-disciplinary team including representatives from various HRM Business Units, Public Health, Halifax Regional Police (HRP), Royal Canadian Mounted Police (RCMP), and Nova Scotia Transportation and Infrastructure Renewal (NSTIR). A HRM Traffic Management representative is best suited to lead the Task Force.

Data Entry and Analysis System

The SRSP needs to develop a solid data foundation from which decisions are made. Data will be used to identify site specific locations for engineering countermeasures and to identify topics and demographics for the outreach program. The data analysis program is required to measure the effectiveness of programs in the HRM and is critical to determine if the goal for the SRSP is being achieved.

Staff must procure a data system, work with stakeholders to gain access to data, populate the system with historical data, complete a quality assessment of the data input, develop a procedure for entering new data, conduct network screening analysis, map results, overlay collision results with demographic data, and prioritize locations and/or behaviours for in-depth review, develop specific action plans, implement the plans and evaluate the impacts.

It should be noted that there are limited software packages in the market that could fit the needs of the SRSP. Staff is currently investigating options that are compatible with existing HRM programs and collision data available from others.

Outreach Program

An overall communications program is required for the SRSP. The intent of the program will be to change driver/pedestrian/bicyclist behaviours. Within the umbrella will be initiatives aimed at specific age groups and risky (collision-causing) actions using appropriate media channels.

It is necessary that the communications outreach be done as a group effort, totally coordinated among all stakeholders. The program components should also be coordinated with media and outreach from the province and other team members.

Complete data analysis will be required to identify target locations and audiences for the outreach program, however while the data program is being implemented an outreach team can be assembled and can begin developing branding. The outreach team can begin developing meaningful engagement with various communities and can start an open dialogue with various groups.

Countermeasures

A countermeasure is an action taken to reduce the incidence or severity of motor vehicle collisions. The basic categories of countermeasures for the SRSP are the traditional three “E”s of road safety: Engineering, Enforcement, and Education.

Specific countermeasures cannot be identified until data analysis is complete; however, proposed countermeasures have been identified for each emphasis area and stakeholders have committed to taking the lead on these countermeasures if the results of the collision analysis confirm their need.

The countermeasures discussed and chosen met two primary characteristics:

1. they have a likelihood of contributing to the reduction of the collision frequency or collision severity of the associated emphasis area; and
2. there must be a stakeholder or stakeholders that are prepared to support and deliver the countermeasure.

Tables summarizing the existing and proposed countermeasures are included in the attachments.

Evaluation

The SRSP is intended as a living document for guiding the safety management process, therefore plan evaluation will be ongoing. The evaluation of the safety programs and countermeasures, both existing and future proposed, is a very important component of the SRSP. If a countermeasure is found not effective, it should be replaced with more effective countermeasures.

It takes several years of data after a countermeasure has been implemented to accurately determine, statistically, if a change has really occurred. Therefore, it will be a few years after the program is launched before valid evaluations of the program's effects can be stated.

The baseline year for the SRSP will be dependant upon the quality and quantity of collision data available to import. Currently collision data is available to 2014. The intent is to set the baseline year as the start of the SRSP implementation (2018). Trends from 2014 to 2017 will be reviewed to determine if a single year or a rolling average will be chosen.

Staff will provide annual information reports to Transportation Standing Committee to report on the progress of the SRSP. The first few annual reports will provide progress updates on the SRSP implementation work completed. This will include creating a Vision Zero Task Force, procuring a data collection program and populating it with historical data, identifying and prioritizing projects, developing action plans and installation updates. It will also include summaries of Education and Enforcement initiatives carried out. A statistically accurate update on the progress of the plan will be provided when sufficient data is available, likely after year four or five.

Following year five, the SRSP will be evaluated and the next iteration of the plan will be developed.

The commencement of annual SRSP reports will replace the semi-annual pedestrian safety reports to Transportation Standing Committee, as the pedestrian data will be included in the SRSP reports.

Update on Existing Road Safety Initiatives

Rectangular Rapid Flashing Beacons

Rectangular Rapid Flashing Beacons (RRFB's) were installed at four crosswalk locations as a pilot project in 2017. Yielding compliance surveys were conducted before and after installation to determine the effectiveness of the new crosswalk control. The pilot received positive feedback and based on the yielding compliance surveys RRFB's have been shown to be an effective type of crosswalk control to increase driver compliance. In response to this HRM has planned the installation of new crosswalks with RRFB's at the following five new locations in 2018:

- Sackville Drive at Beaconsfield Way at Executive Drive
- Bissett Road at the Salt Marsh Trail
- Bissett Road at the former Rehab Centre
- Civic 420 Larry Uteck Boulevard
- Caldwell Road at Atholea Drive

Fluorescent Yellow-Green Pedestrian Crosswalk Signs

HRM Traffic Management is currently working with partners in the Transportation Association of Canada (TAC) on a volunteer project to evaluate the effectiveness of fluorescent yellow-green pedestrian crosswalk signs at uncontrolled marked pedestrian crosswalks. The results will be used to determine if the yellow-green signs should be recommended for inclusion in the Manual of Uniform Traffic Control Devices for Canada (MUTCDC).
Yielding compliance studies were completed at six pilot locations before the installation of fluorescent yellow-green crosswalk signs and again at regular intervals after installation. Results from this study will be compiled with the data collected by other jurisdictions.

Fluorescent Yellow-Green Sign Posts

Staff will be initiating a pilot project this summer to install fluorescent yellow-green material on sign posts at basic uncontrolled marked crosswalks. This is in anticipation of a potential recommendation in the fall by the TAC project steering committee to propose that: where engineering judgment indicates a need to draw attention to the sign during nighttime conditions, a strip of retro-reflective material may be used.

Semi-Annual Pedestrian Safety Reporting

Since receiving direction from Regional Council on May 10, 2016, semi-annual reports have been submitted to the Transportation Standing Committee (TSC). The most recent semi-annual pedestrian safety report (January to December 2017) was submitted to TSC on May 24, 2018. The report included a summary of pedestrian collision data and an update on existing pedestrian safety initiatives as well as education and enforcement initiatives related to pedestrian safety.

FINANCIAL IMPLICATIONS

This report approves the strategy for the Strategic Road Safety Plan, but does not approve specific capital projects. In subsequent years, the SRSP may require a combination of additional funding, re-prioritization of projects, and additional staff resources. Any specific project approvals would be achieved through future Council decisions on the Long-Term Capital Outlook and annual capital budgets.

Budget requirements associated with the implementation of the strategic road safety plan will vary depending on several factors that can only be identified through the data analysis and selection of site specific countermeasures. Some factors include the size of the project, the type of countermeasure selected and existing infrastructure/conditions at the project location.

RISK CONSIDERATION

There are no significant risks associated with the recommendation in this report. The risks considered rate low. To reach this conclusion, consideration was given to financial, legal and compliance, and service delivery risks.

COMMUNITY ENGAGEMENT

Community stakeholders and the public were consulted during the development of the SRSP. A list of potential community stakeholders was developed and each was invited to participate in one or two workshops, depending on their ability to deliver programs. Summaries of the two workshops are provided in the attachments.

When moving forward with implementation, the Task Force lead will be responsible for re-engage existing stakeholders and engaging new stakeholders who may have been missed or were not available during the initial stakeholder outreach.

To enhance the data-driven results of the HRM SRSP, input was sought from the HRM residents through an online survey. A copy of the survey is provided in the attachments. HRM Corporate Communications advertised and distributed the survey through various media outlets such as the HRM website, a radio interview, Facebook, Twitter, flyers, and Dalhousie Transportation Collaboratory (DalTRAC) promotions.

The survey was open from April 25th to May 19th, 2017 and 1219 valid responses were received. Only 25 of the survey respondents polled were noted as living/working outside of the HRM, so the data results accurately show the public's safety concerns within the HRM.

Following the second workshop HRM received feedback letters from some stakeholder groups. The feedback letters are included in the attachments. Changes have been made to the SRSP in response to the feedback received.

ENVIRONMENTAL IMPLICATIONS

Implications not identified.

ALTERNATIVES

1. Regional Council could direct amendments to the SRSP. If this option is selected, a supplementary report may be required depending on the extent of the amendments.
2. Regional Council could choose to not adopt the SRSP. This is not recommended as this project supports Council's priority areas, including Transportation and Healthy, Liveable Communities.

ATTACHMENTS

Attachment A: HRM's Strategic Road Safety Plan
Attachment B: Workshop Summaries
Attachment C: Copy of public opinion survey and advertisement
Attachment D: Countermeasure tables (existing and proposed)
Attachment E: Stakeholder feedback (Advocacy groups, Public Health)

A copy of this report can be obtained online at halifax.ca or by contacting the Office of the Municipal Clerk at 902.490.4210.

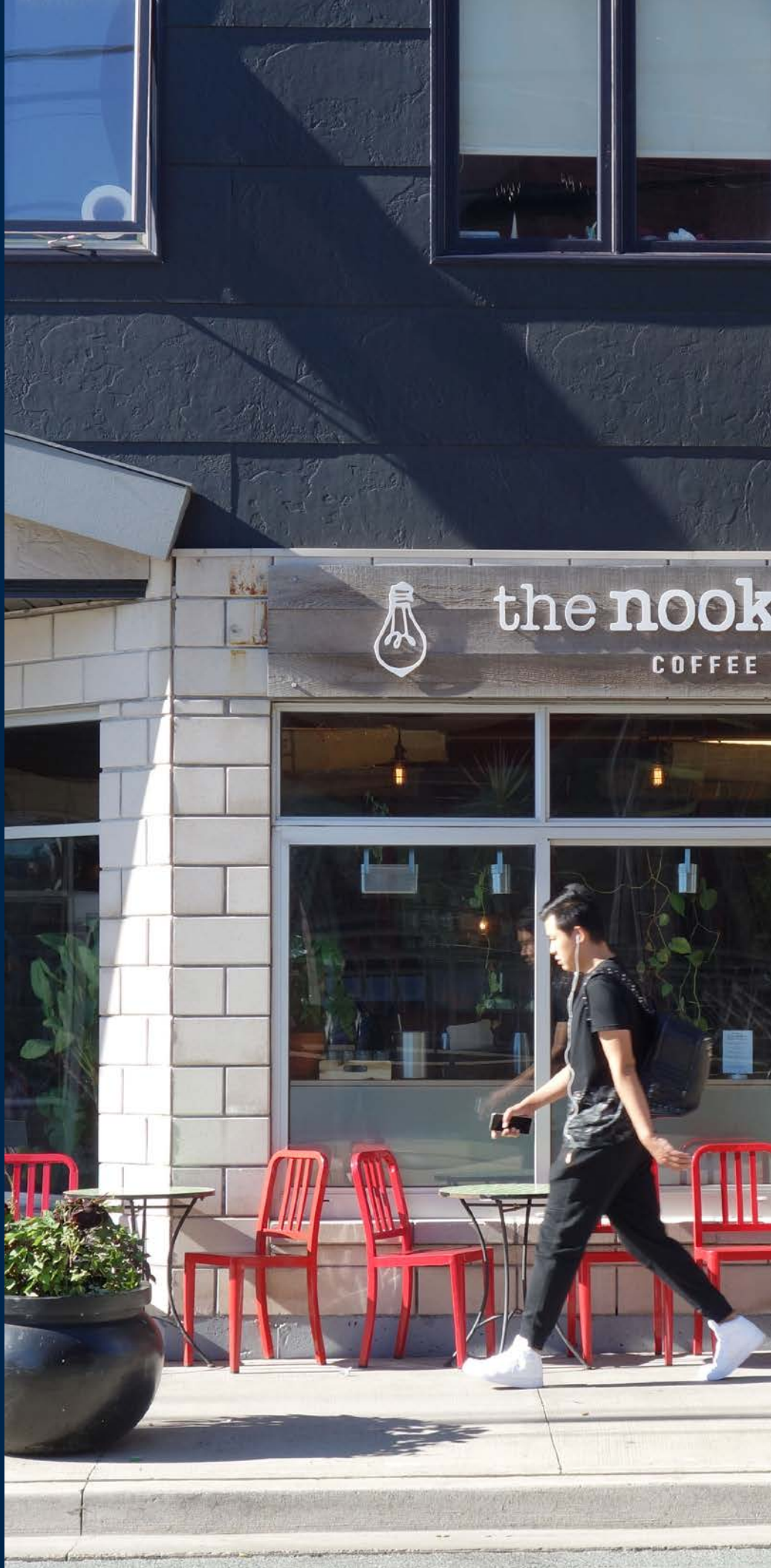
Report Prepared by: Jody DeBaie, P.Eng., Road Safety Engineer, 902.490.6845

STRATEGIC **ROAD SAFETY** PLAN

2018-2023

HALIFAX

MAY 2018



Introduction

Any loss of life on our roads is unacceptable. Vehicle collisions in the Halifax Regional Municipality (HRM) have resulted in, on average, over 1,400 personal injuries and 14 fatalities annually. Today, there are numerous safety programs implemented by multiple agencies to improve the safety of our roads; however, the efficacy of these programs can be improved through greater coordination. The tool to facilitate this coordination is this Strategic Road Safety Plan.

This Strategic Road Safety Plan will improve the effectiveness of road safety programs by:

- Focusing resources in areas where they will have the most impact
- Aligning municipal and partner resources to work towards a common goal
- Coordinating investment decisions to maximize program effectiveness

Strategic Road Safety Plans enable a holistic road safety approach to work towards reducing injuries and fatalities to zero.

How to use this Plan

This Strategic Road Safety Plan provides the foundation work that is required to build a culture of road safety.

Specifically, this Plan provides an overview of HRM's approach to road safety – including the vision, goal, emphasis areas and countermeasures that will help reduce collisions in HRM. Moving forward, this Plan will inform the development of action plans to address emphasis areas that improve road safety.

1400
PERSONAL INJURIES

14
FATALITIES

per year on average in HRM

Towards Zero

Vision Zero is a road safety approach with the ambition to reduce transportation fatalities and injuries to zero. This approach focuses on how the different components of the transportation system (roads, vehicles and users) interact to improve safety. According to Vision Zero, the problem is not necessarily that collisions occur, it is that they lead to death or lifelong injury. Implementing a Vision Zero approach requires cultural and regulatory changes, as well as multidisciplinary collaboration, to implement the engineering, enforcement and education programs needed to save lives, prevent severe injuries and increase physical activity.

Vision Zero acknowledges that people make mistakes and that the road system needs to protect people. Planning, designing and building roads to allow people to move while protecting them at every turn will help increase safety and reduce fatal accidents, especially when paired with educational and enforcement initiatives.

Creating a community with zero road injuries and deaths is a long-term vision – it is not a realistic short-term goal. Towards Zero is an approach that moves us closer to Vision Zero by focusing on continuous, shorter-term action plans.

VISION ZERO

Premise

Any loss of life is unacceptable.

Core Principle

In every situation a person might fail – the road system should not.

visionzeroinitiative.com

Today

TOWARDS ZERO

ZERO fatalities & injuries

» From Towards Zero to Vision Zero

Did you know?

Vision Zero was developed in Sweden in 1994 and three years later it was passed into Swedish law.

Jurisdictions across North America have recently begun adopting Vision Zero approaches, including Toronto, Edmonton, New York and Washington D.C., and early results look promising. This is particularly true for New York, which has experienced a continuous decline in traffic fatalities over the last three years since adopting a Vision Zero approach.

The Government of Canada has chosen to adopt Towards Zero as their vision for a Road Safety Strategy (2025). In the United States, the Federal Highway Administration has adopted a 'Road to Zero' approach, which is an alternative term for Towards Zero.

These examples illustrate the growing adoption of Vision Zero and Towards Zero across North America and the world.

Halifax Regional Municipality Vision + Goal

— VISION —

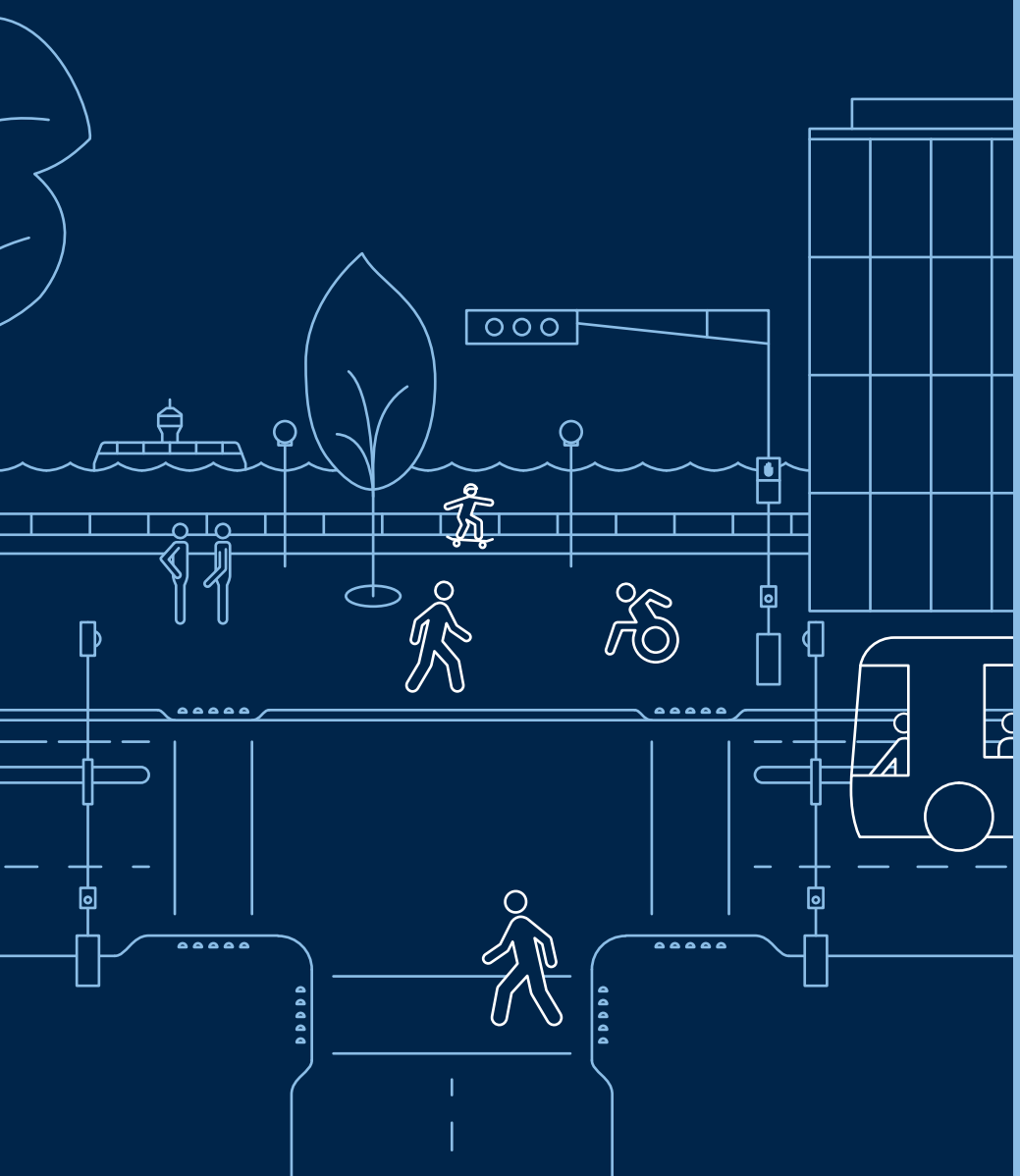
Moving towards zero fatalities and injuries for people using any mode of transportation.

For the Halifax Regional Municipality, the long-term vision for road safety aligns with Vision Zero.

— **GOAL** —

15% reduction of fatal and injury collisions within five years.

Following the Towards Zero approach, HRM's short-term goal will inform action plans and allow continuous progress towards the vision.



How did we get to 15%?

Though it may initially appear modest, a 15% reduction is a challenging, yet achievable, goal.

Key challenges include:

- The Halifax Regional Municipality does not have an established safety committee or culture
- The municipality and its partners are starting from the beginning and must put funding and support programs in place
- The Halifax Regional Municipality is growing and, as a result, so is congestion. A 15% reduction based on today's population is a greater percent reduction after five years of growth

It is important to note that this goal is not set in stone. If the target is achieved, the goal should be reset for further reduction.

Did you know?

A 10-15% reduction over five years is in line with other Strategic Road Safety Programs, such as Hamilton, London and the Region of Peel.

About this Plan

Strategic Road Safety Plans provide a collaborative framework to inform focused objectives and action plans to create:

Safer roads to reduce collisions and result in fewer injuries and fatalities.

Strategic Road Safety Plans are an effective, proven tool to improve road safety. Several provincial, state and municipal governments have successfully implemented Strategic Road Safety Plans over the last few years. This provided the Halifax Regional Municipality with plenty of examples to learn from and adapt to the local context.

Strategic Road Safety Plans help improve road safety awareness and empower a road safety culture. They do this by bringing together a diverse group of stakeholders, each with an interest and ability to improve road safety, to work together to create and implement programs and initiatives. To improve awareness and create a road safety culture, this Plan will:

- Inform collaboration between road safety stakeholders
- Use data to identify emphasis areas to target objectives and action plans
- Incorporate safety into existing plans and programs
- Strategically allocate funding to initiatives

Facilitating collaboration with other road safety stakeholders is the most important function of this Plan. Working together achieves better outcomes, uses resources efficiently and builds upon different organizational strengths. This collaborative effort is more effective than stand-alone initiatives, because it focuses resources towards common objectives and avoids redundant, duplicate or inefficient programs.

Did you know?

'The United Nations Decade of Action for Road Safety' supports the Vision Zero concept.

In the U.S., legislation was passed in 2005 requiring each state's Department of Transportation to develop a Strategic Road Safety Plan. Today, most states are on their second or third iteration and the development of these plans has, in some cases, moved to the municipal level.

Process

1

BEST PRACTICES REVIEW

Municipalities and countries around the world have created, or are creating, Strategic Road Safety Plans. This experience provided the project team with a selection of best practices from which to take inspiration.

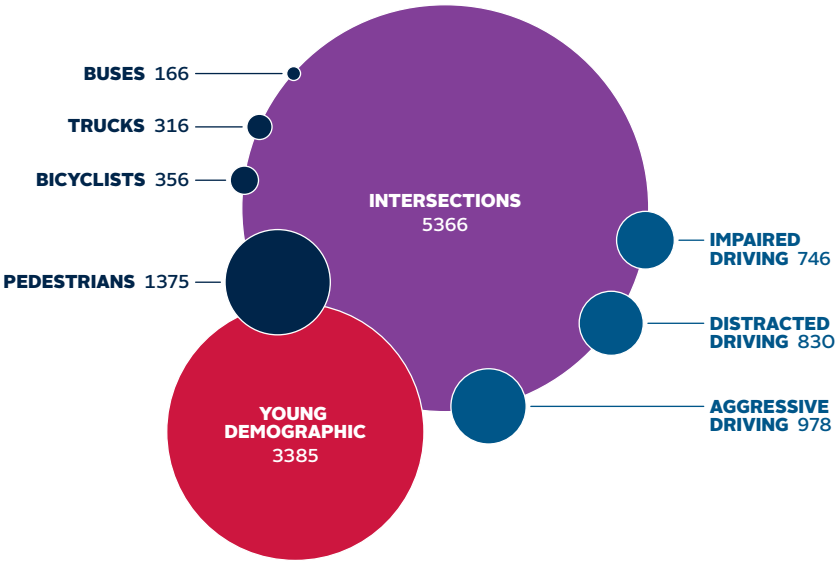
In addition to other Strategic Road Safety Plans, the team also reviewed the U.S. Federal Highway Administration (FHWA) road safety materials. The FHWA produces guides to assist State Departments of Transportation to develop their road safety plans. The HRM Strategic Road Safety Plan is consistent with the approach and methodology outlined in these guides.

Reviewing other strategies also provided the project team with lessons learned from other jurisdictions. A comprehensive best practice review ensured that this Plan reflects the latest thinking and applies proven approaches to the HRM.

2

COLLISION DATA REVIEW & ANALYSIS

Data is critical to the ongoing success of this Plan. First, historical collision data identified areas to focus resources to have the greatest impact on road safety (these areas of focus are known as **emphasis areas**). Second, baseline data with regular monitoring will help evaluate the success of interventions in improving road safety (these interventions are known as **countermeasures**). Third, this ongoing data collection and monitoring will help the municipality and its partners measure progress towards the goal and vision of this Plan.



» Collision Data: Fatal & Injury Collisions (2007-2014)

TYPE OF FACILITY | **DEMOGRAPHIC GROUP**
MODE OF TRANSPORTATION | **TYPE OF BEHAVIOUR**

Best Practices

The project team reviewed best practices from San Jose, San Francisco, Seattle, New York City, Calgary, Chicago, Ottawa, Quebec City, the Government of Canada, the United States Government – and more – to inform this Plan.

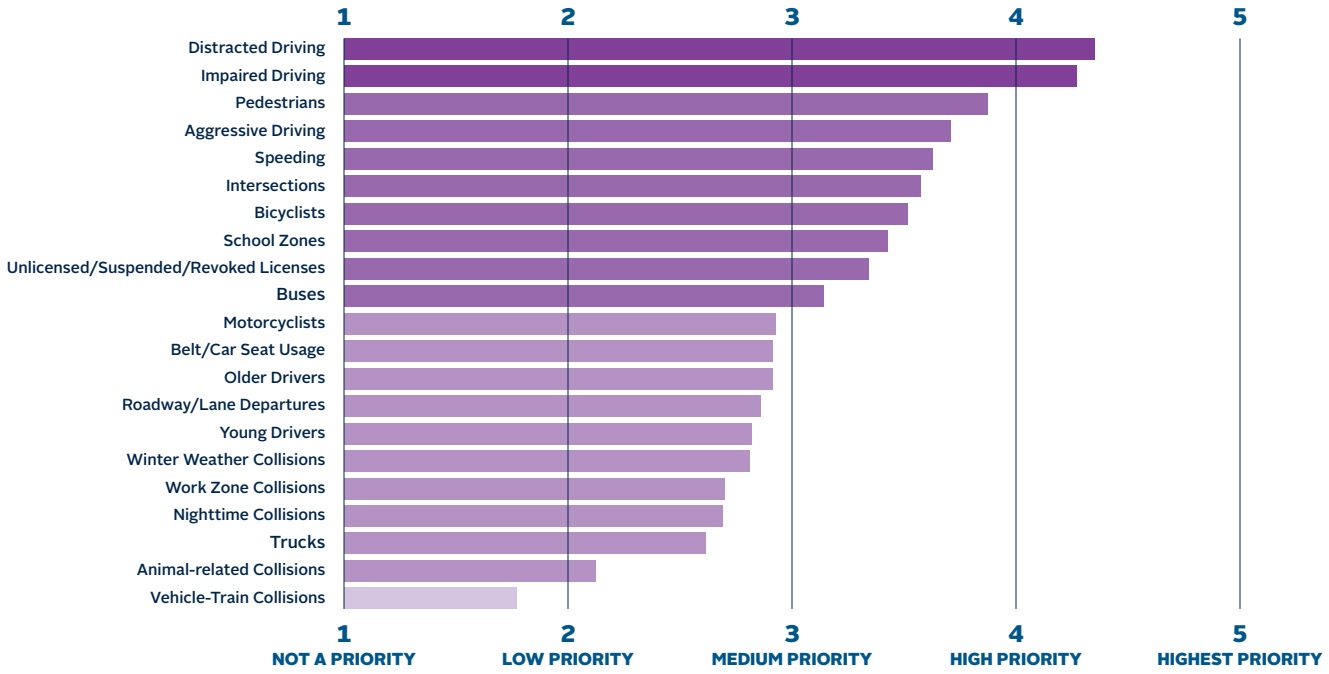
3

PUBLIC FEEDBACK

Residents in the region shared their thoughts and concerns about road safety through a short survey. This public input verified the results of the collision data analysis and provided an invaluable opportunity to compare the perception of safety with safety data.

Public perception of safety aligned, almost exactly, with the collision data results. Specifically, six of the seven emphasis areas identified through the data analysis also ranked within the top six areas of concern for the public. This correlation confirms the accuracy of the public understanding of the most dangerous types of collisions.

The project team diligently reviewed the few differences between public input and collision data to see whether the emphasis areas required adjustment. For example, numerous participants suggested school zones as an emphasis area. However, since the number of collisions in school zones is very low and the few collisions that do occur are located randomly, school zones were not added as an emphasis area, as it would divert resources from much larger target areas that have a better chance to achieve the goal of this Plan. It is important to note that 'young demographic' is an emphasis area, which includes collisions that involve people under 25 years of age. This example illustrates how public input facilitated a thorough vetting of the emphasis areas.



» Public Opinion Survey – Average Results

4

STAKEHOLDER WORKSHOPS

To foster collaboration, the creation of this Plan required stakeholder review and input. Stakeholders provided input over two workshops. Both workshops were instrumental in defining this Plan's purpose and content.

Workshop 1: Vision, Goal and Emphasis Areas

Stakeholders reviewed and agreed on the draft vision and goal. They also reviewed the results of the collision analysis and public survey, both of which resulted in the emphasis areas. After a thorough review and discussion, the stakeholders endorsed the seven emphasis areas.

Workshop 2: Action Plans

In this workshop, the stakeholders discussed their roles in existing and future countermeasure programs. They also discussed how to collaborate and implement next steps.

Concepts

EMPHASIS AREAS

Collision data from 2007 to 2014 was acquired and analyzed to identify which collision circumstances result in the largest number of injuries and fatalities. After reviewing this data together with the public survey and vetting it through the stakeholders, these collision areas became the emphasis areas.

Emphasis areas are the highest priority areas to focus resources to have the greatest impact in reducing injuries and fatalities. Typically, Strategic Road Safety Plans select six to eight emphasis areas to avoid spreading resources too thin. For this reason, this Plan has seven emphasis areas. These seven areas have the greatest opportunity to improve safety from a technical, political and social perspective.

These emphasis areas overlap and a single collision can involve any combination of emphasis areas. However, future action plans will target individual emphasis areas.

INTERSECTION RELATED

All collisions that occur within an intersection

YOUNG DEMOGRAPHIC

Collisions that involve people under 25

PEDESTRIAN COLLISIONS

Collisions that involve any person who is not riding in or on a vehicle

AGGRESSIVE DRIVING

Collisions that result from behaviours like following too close, speeding, disobeying traffic control, improper passing and more

DISTRACTED DRIVING

Collisions that result from inattention

IMPAIRED DRIVING

Collisions where the driver is impaired or under the influence of drugs or alcohol

BICYCLIST COLLISIONS

Collisions that involve someone on a bicycle

COUNTERMEASURES

DO DIFFERENT AND DO MORE

Countermeasures are actions taken to reduce the occurrence or severity of a collision. The major guiding principle to direct the creation and evaluation of countermeasures is **"Do Different and Do More"**. Specifically, this means:

1. Ensuring that existing countermeasure programs are effective, aligning these measures with the emphasis areas and adjusting them, if required – **Do Different**
2. Committing the resources necessary to enhance, expand and introduce new countermeasures – **Do More**

The "Do Different and Do More" principle is critical to the success of this Plan, because if the status quo continues, the goal will not be met and progress will not be made towards the vision.

ENGINEERING, ENFORCEMENT, EDUCATION

Countermeasures fall under the 3 E's – **engineering**, **enforcement** and **education** – and each have their own strengths. Together, they complement each other by addressing road safety from multiple perspectives and scales.

In this Plan, countermeasures must have the following two characteristics:

- They are likely to help reduce collision frequency or severity within an individual emphasis area
- A stakeholder, or multiple stakeholders, can support and deliver the countermeasure

	ENGINEERING **Physical changes to the road.** Includes traffic calming, traffic control and warning devices, pavement markings and regulation changes.	**ENFORCEMENT** **Oversight of drivers.** The primary goal is to reinforce the rules of the road. The secondary goal is to educate drivers about the consequences of their actions.	**EDUCATION** **Communications outreach programs to promote safer behaviours.** Includes increasing the awareness of surroundings and reducing risky behaviours.
IMPLEMENTATION **The ease of implementation or change.** Determined by the speed and cost-effectiveness of implementing actions.	The costs of engineering solutions vary from simple cost-effective measures (e.g. installing a traffic sign) to expensive capital projects that require years of capital budgeting and public consultation.	Short, high-profile campaigns can be organized quickly. However, consistent, long-term efforts require more planning and a greater budget. As a result, they are more difficult to sustain.	Educational countermeasures require more time to see significant changes. Since changing behaviour is not easy, implementation is challenging. However, education measures target the cause of collisions directly and hold great potential for collision reduction.
MONITORING **The ability to monitor and measure the impact of a countermeasure.** Depends on whether research and data is available.	There is extensive background data and research into the effectiveness of specific engineering measures to help focus on the most impactful actions. Since engineering actions apply to a specific site, it is easier to measure the success of improvements.	The impact of enforcement activities is more difficult to measure, and as a result, less data is available on individual program effectiveness. Ongoing research will help inform specific actions. Enforcement measures apply to a broader area, which makes it more challenging to attribute overall improvement to a specific action.	Like enforcement, educational countermeasures have less data and research support. However, also like enforcement, ongoing research is helping to define the overall benefits of these programs. Since education measures apply to the largest physical area and, typically, have longer timeframes, they require a delay in monitoring to give the program time to resonate.
IMPACT **The level of widespread impact.** Includes the number of people a countermeasure can reach and the size of the physical area it impacts.	Since engineering countermeasures target specific locations, the impact is quite localized.	The impacts of enforcement depend on the consistency and degree of effort.	Educational countermeasures have the greatest opportunity for widespread and permanent change.

Countermeasure Strength: High Medium Low

SMART

During the creation of the Strategic Road Safety Plan, the project team identified dozens of existing and future countermeasures to explore when creating road safety action plans. When conducting this initial review of existing and future countermeasures, the project team applied the **SMART** approach to ensure each countermeasure is **Specific**, **Measurable**, **Action-oriented**, **Realistic** and **Time-bound**. During this countermeasure identification process, the project team worked with stakeholders and gained commitments to move forward with specific countermeasures, if they are deemed appropriate. This approach resulted in an initial list of vetted countermeasures. However, more work is required before these countermeasures are finalized into an action plan, most notably the creation of a task force and the procurement of a data analysis system.

To monitor progress, stakeholders must continually review and evaluate countermeasure programs through an official road safety task force. Based on this review and evaluation, under performing countermeasures may be altered, scaled-back or cut with their resources reassigned to new programs. To ensure an effective review and evaluation, the municipality and its partners must obtain and implement a data analysis program.

Did you know?

The U.S. Department of Transportation's National Highway Traffic Safety Administration's 'Countermeasures that Work' document includes research into the general benefits of enforcement and education measures. They include important insight into campaigns aimed at aggressive driving, distracted driving, pedestrians and bicyclists.

Countermeasures that Work: A Highway Safety Countermeasures Guide for State Highway Safety Offices, Seventh Edition, 2013; U.S. Department of Transportation, National Highway Traffic Safety Administration.

Implementation

The implementation of the Strategic Road Safety Plan will align with the values of Regional Council through:

- **Evidence-based decision making:** Action plans based on collision data and focused on the seven emphasis areas
- **Collaborative approach:** Ongoing engagement between government and community stakeholders
- **Equitable approach:** Ongoing inclusive and meaningful community engagement and using demographic data to help inform the countermeasure prioritization
- **Continuous evaluation:** Ongoing review with amendments and updates, when needed, to ensure ongoing relevance

To implement this Plan, the municipality and its partners will:

1. Form a Task Force

Stakeholder groups that have the ability to implement countermeasures will be included in the task force. This task force will then deliver and monitor the success of countermeasures and, ultimately, progress towards the vision and goal of this Plan.

2. Obtain and Implement a Data Analysis System

The Strategic Road Safety Plan must develop a solid data foundation from which decisions are made. Collision data will be used to identify site specific locations for engineering countermeasures and to identify topics and target audiences for education campaigns.

The task force must also use a data analysis system to evaluate the effectiveness of countermeasures and use this evaluation to inform resource allocation. Location-specific data is required to measure the success of targeted countermeasures. The data analysis system needs to be in place and populated with historic data before the implementation of action plans to support ongoing evaluation.

Lastly, data is required to establish a baseline to measure overall progress towards achieving the goal of this Plan.

3. Implement an Outreach Program

The task force will lead the creation of an overall communications program that includes branding for Strategic Road Safety Plan projects. This outreach program can and should occur while the data program is being implemented to start conversations early on with communities throughout the HRM.

The intent of this outreach program is to change driver, pedestrian and bicyclist behaviours. There will be initiatives aimed at specific age groups and risky actions (e.g. distracted driving) using communications channels that appeal to the targeted audience. Implementing this outreach as a coordinated program will be more effective than individual campaigns.

4. Evaluate Existing Road Safety Programs

Once the data analysis system is in place, the task force will use it to evaluate existing programs to see if they are reducing collision severity in any of the emphasis areas. If the results of this evaluation indicate that programs are no longer effective or do not impact an emphasis area, the task force will reallocate resources to initiate more effective safety programs.

This data will also inform the planning and implementation of new countermeasures. As new countermeasures are created, how they will be evaluated needs to be established upfront. Successful existing programs and new countermeasure programs will be compiled into short to medium term action plans that define the resources required, the funding available and the emphasis areas targeted.

An Equitable Approach to Road Safety

Using an equitable approach during the implementation process will ensure that HRM's most vulnerable populations are engaged and see an improvement in road safety.

INCLUSIVE OUTREACH

The municipality is committed to an open outreach program. Mobilizing an outreach team early, working with the municipality's Diversity and Inclusion Office and engaging early with diverse communities throughout HRM will ensure meaningful engagement.

Working with different communities, understanding their needs and facilitating open communications is critical to inclusive outreach programs. The Vision Zero Network provides tools and advice to help municipalities create accessible communications strategies without assumptions (including recommendations on appropriate word choice). The municipality will also follow best practices in branding and communications to provide materials that resonate with different audiences throughout HRM.

DEMOGRAPHIC DATA

Though collision data is the primary factor when determining resource allocation, demographic data can help prioritize projects to ensure an equitable distribution of countermeasure programs.

Demographics will be incorporated into the data analysis by overlaying census data over the collision map. The results will be reviewed and considered when prioritizing project implementation.

Incorporating demographic data into the data analysis will also help identify target locations and audiences for outreach programs.

5. Evaluate the Success of Countermeasure Programs

The success of individual countermeasure programs will be evaluated as they are implemented. If a countermeasure is deemed ineffective, then its resources will be reallocated to another countermeasure and the action plans adjusted.

It is important to note that it takes several years of data after a countermeasure has been implemented to statistically determine if a significant change has occurred. Therefore, it will take a number of years, likely four or five, after a program is launched before valid evaluations of the program's effects can be stated.

Finally, the task force will evaluate overall progress towards the goal and vision of this Plan. This will be an iterative process that involves the task force working together to understand what works and what doesn't – this means continuous and ongoing evaluation. This evaluation will be instrumental to inform the next iteration of the Strategic Road Safety Plan in five years time.

Stay tuned!

The municipality is currently in the process of developing the specific actions that will work towards achieving the vision and goal of this Plan. These actions will be determined through the implementation steps, outlined above, including the analysis of collision data.

The development of action plans will be an ongoing process to ensure the effectiveness of specific actions in collision reduction in HRM.

Conclusion

This Plan is an important tool to improve the safety of our roads and work towards zero injuries and fatalities in HRM. It does this by:

- Using data to define areas of focus, allocate resources effectively and measure progress
- Creating a collaborative framework to build partnerships and focus resources across different agencies
- Defining a process to ensure program efficiency, effectiveness and excellence

The Strategic Road Safety Plan will help create a culture of road safety in the Halifax Regional Municipality where we each have a role.

From the people who design and build the roads

— ENGINEERING —

To the people who monitor our roads

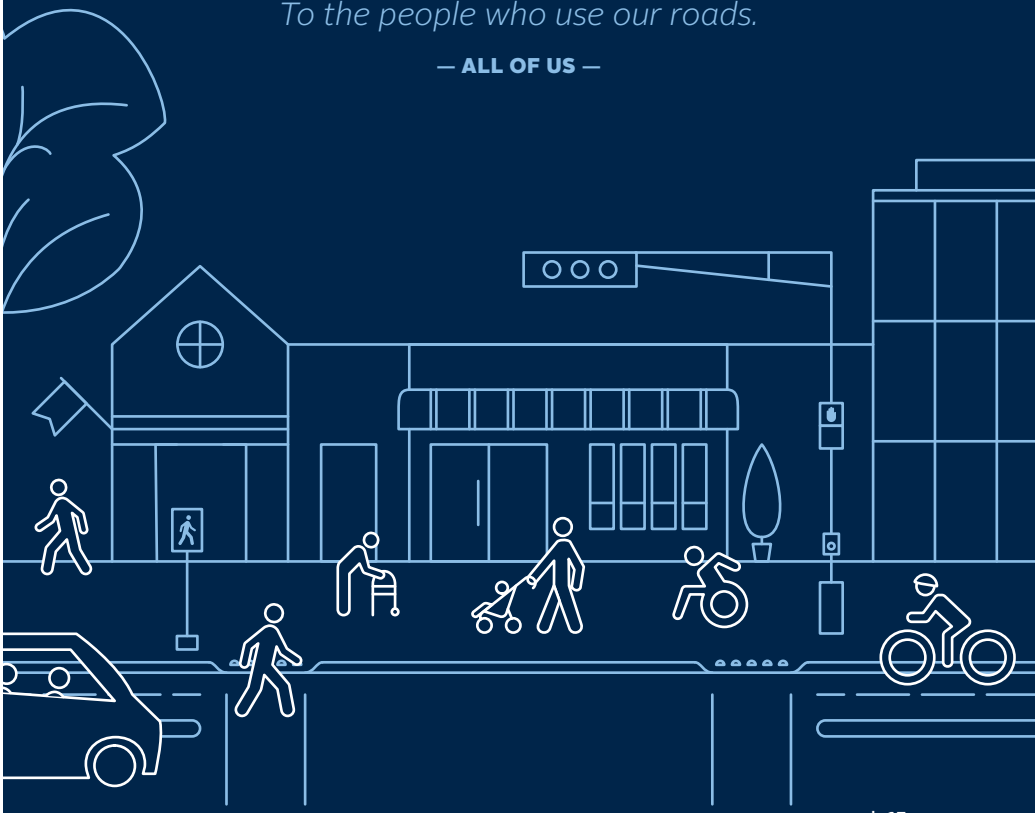
— ENFORCEMENT —

To the people who share information about our roads

— EDUCATION —

To the people who use our roads.

— ALL OF US —

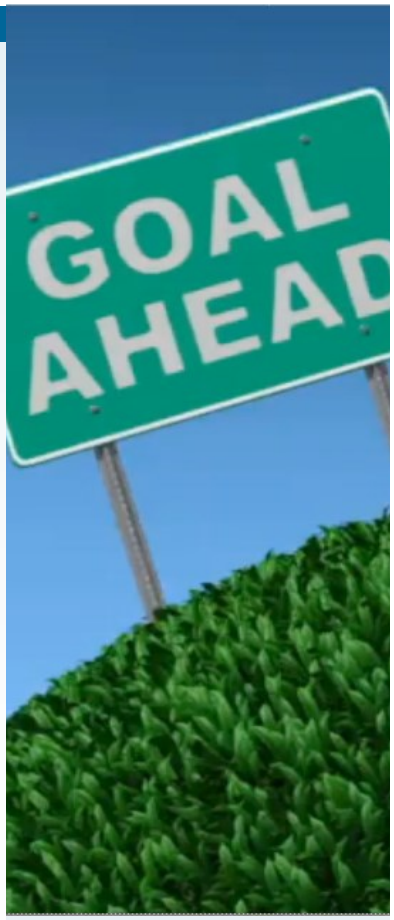


HALIFAX

HALIFAX

June 8, 2017
Workshop #1

Strategic Road Safety Plan



Introduction

Motor vehicle collisions in the Halifax Regional Municipality have resulted in, on average, over 1,400 personal injuries and approximately 14 fatalities annually. Halifax has recognized that, despite having an active safety program to address motor vehicle collisions, a new and broader-based approach is required and, as a result, has proposed the development of a Strategic Road Safety Plan (SRSP) for the Municipality. This SRSP will set out the goals, objectives, and action plans to guide the Municipality and its road safety partners towards creating safer roads and reducing the number of collisions and, thus road fatalities and injuries.

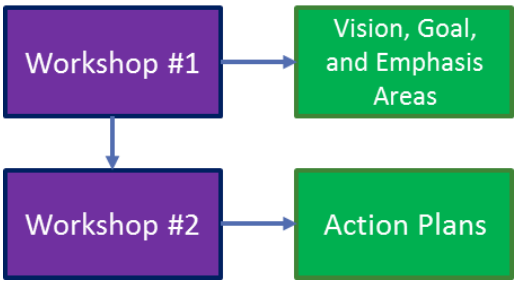
In general, SRSPs are used to improve the understanding of the state of practice in road safety and consequently, improve the safety performance of the road component of a transportation network. A SRSP is best achieved through collaboration among a diverse group of stakeholders from engineering, enforcement, and education as a consultative group to ensure a road safety culture is explicitly considered and embedded in the vision of the organization.

Progress in safety management and stakeholder involvement can be seen in the strategic road safety programs which have been adopted by several Canadian and international jurisdictions. These jurisdictions have realized that traffic safety needs to be managed strategically, from visioning and explicit goals, to design and implementation, to evaluating progress, to a communication and marketing plan and continually updating the plan. In Canada, several provinces (i.e. Alberta and Quebec) and a number of municipalities (i.e., Toronto, Edmonton, Ottawa, London and Hamilton) have recently adopted the strategic safety program approach, or a variation of it, in an effort to continue to reduce the number and severity of road collisions motivated by the United Nations decade of Action for Road Safety and Transport Canada Road Safety Strategy 2015 and 2025.

Inside This Issue

Workshop #1 Purpose

CIMA+ has been retained to develop a Strategic Road Safety Plan for the Halifax Regional Municipality. The process of the development of the SRSP includes two workshops with agency representatives who contribute to road safety in the Municipality (stakeholders) as well as input from the public.



Halifax Regional Municipality Strategic Road Safety Plan Workshops and Outcomes

At the beginning of the project, a contact list of stakeholders was developed in consultation with the HRM Project Team. The stakeholders were invited to attend Workshop #1 whose objective was to:

1. Introduce the process of the development of an SRSP;
2. Present a summary of the literature review completed;
3. Present the draft vision and goals and seek their feedback;
4. Present the results of the collision analysis; and
5. Present the proposed emphasis areas for the SRSP.

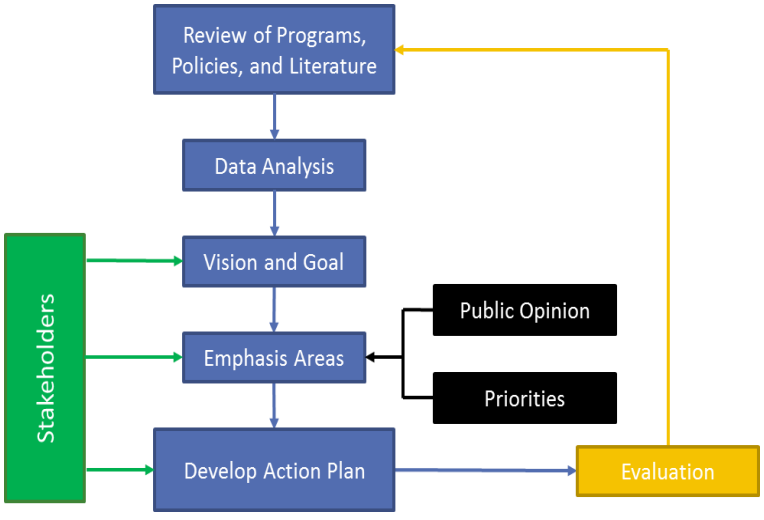
"The plan is to identify initiatives to improve safety."
- Taso Koutroulakis, HRM Traffic Management

Road Safety Strategic Plan Development

A comprehensive review of similar projects completed in Canadian and international jurisdictions was completed and the results were presented to the Stakeholders in Workshop #1. Their visions, goals, and their actions were reviewed.

One of the key trends in the past few years is the concept of Vision Zero and Towards Zero which were presented to and discussed with stakeholders. Vision Zero originated in Sweden in 1997 and was passed into law at the federal level. Vision Zero can be summarized in one sentence:

No loss of life is acceptable.



Typical Strategic Road Safety Plan Workflow

Many jurisdictions in North America including Canada have recognized that an intermediate step first should be taken to reduce fatal and injury collisions to ultimately achieve zero fatality or injury. Therefore, these jurisdictions have adopted a vision of Towards Zero. Both concepts were discussed in Workshop #1 and Towards Zero was collectively adopted.

The long term goal that no one should be killed or seriously injured as the result of a collision within the road transport system. Since we cannot change human capabilities or limitations, the system must be changed.

Vision and Goal

A vision statement takes a high-level, long-term viewpoint about what everyone would ultimately like to achieve. A goal statement is about what can be achieved in the short term and should be quantitative in nature.

Draft vision and goal statements were presented to the stakeholders. After discussions, the stakeholders agreed on the following statements:

Vision:

Moving towards zero fatalities and injuries for people using any mode of transportation.

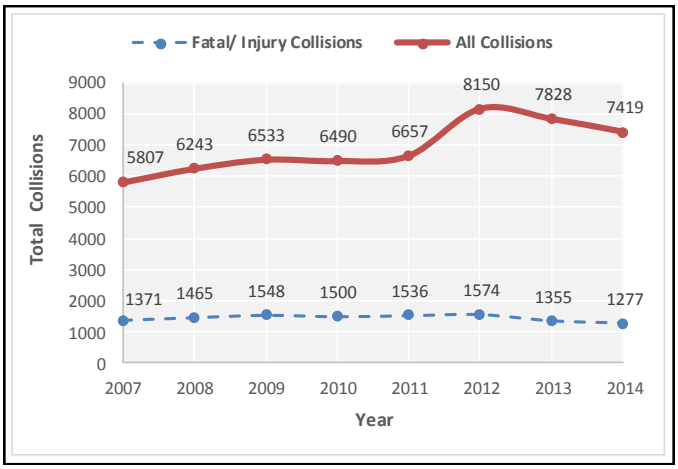
Goal:

15% reduction of fatal and injury collisions within five years (2018-2023).

Brian Malone (CIMA+) Presenting Vision and Goal Statements

Collision Data Analysis

During Workshop #1 the collision data for the Halifax Regional Municipality was presented for the years 2007—2014. The analysis is based upon collisions which occurred in the municipal boundaries. The intent of a SRSP is to be data-driven and objective. The main data used for identifying emphasis areas is collision data. The data analysis used information about collision severity, impact type, location, age, road condition, driver action/behavior, restraint usage, and driver condition (impairment/ distracted).



Total Collisions in the HRM (2007-2014)

Public Opinion Survey

Public involvement is a key component to the development and implementation of a successful strategic road safety plan. CIMA+ developed a short survey to obtain a public opinion about the perception of safety in HRM and the areas they feel require improvement. The public were asked to rank 21 different collision groups (potential emphasis areas).

HRM advertised and distributed the survey through various means:

- HRM website
- Radio interview
- Facebook
- Twitter
- Hundreds of flyers
- DalTRAC promotion

The survey was open for over a month and 1219 valid responses were received. Out of the top 10 of data driven and public opinion collision groups that were determined, 7 were an exact match. This illustrates the public's awareness to the top safety priorities with the HRM.

About the Halifax SRSP

The Halifax Regional Municipality (HRM) is developing a Strategic Road Safety Plan (SRSP) to improve road safety in the Municipality. This SRSP will set out the vision, goal, and action plans to guide the Municipality and its road safety partners towards creating safer roads and reducing the number of collisions and, thus road fatalities and injuries. The HRM will work and consult with a broad range of partners including the Province, police, and advocacy groups in the development of this plan. It is very important for us to have a better understanding of safety issues and priorities perceived by the public. The SRSP is to be conducted within the framework of a range of policies and must place road safety as a corporate objective through several goals.

Emphasis Areas

An emphasis area is a highest priority area with opportunities to improve safety from a technical, political, and social perspective. Generally, six to eight emphasis areas are selected for SRSPs. The sources for the selection of emphasis areas come from:

- Collision analysis
- Public opinion
- Social, political, and practical constraints

In addition to the data analysis, it was important to also get feedback from the public that live or work within the Halifax Regional Municipality. Through a public opinion survey, the public provided their feedback and concerns about traffic safety. The public's comment on road safety were generally consistent with the results of the data analysis. Older demographic was brought up to be included as an emphasis area. However, the older demographic was not selected as an emphasis area because: (1) it is not supported by the collision data; (2) countermeasures dealing with older demographic drivers often are controlled by the Province; (3) older demographic as considered indirectly as part of pedestrian population. Therefore, it was not included as an emphasis area.

Using the information from collision analysis and public input, stakeholders selected the following seven emphasis areas:

Intersection Related Collisions
Young Demographic
Pedestrian Collisions
Aggressive Driving
Distracted Driving
Impaired Driving
Cyclist Collisions

Countermeasures and Action Plan

A countermeasure refers to an engineering, education, or enforcement treatment or strategy designed to reduce the occurrence or severity of collisions. They are applied to emphasis areas to reduce collisions. Countermeasures are chosen based on:

1. The likelihood of success; and
2. The ability of one (or more) of the partner agencies to deliver the action.

The collection of countermeasures that make up a jurisdiction's plan to improve safety is referred to as an action plan and are intended for completion as part of Workshop #2. The members of the Project Steering Committee and part of the stakeholder committee will deliver countermeasures. Members should initiate actions in their organizations leading to countermeasure development and implementation.

Workshop Discussion Summary

CIMA+ presented Vision Zero and various safety plans from jurisdictions in North America and the logical process for the development of an SRSP. It was emphasized that the development of an SRSP is a data driven, multidisciplinary, and collaborative process.

Part of a SRSP includes a vision and a goal statement. A vision statement takes a high-level, long -term viewpoint about what everyone would ultimately like to achieve. A goal statement is about what can be achieved in the short term and should be quantitative in nature. The participants took time to review and comment on the draft vision and goal statements which were initially drafted by CIMA+ and the Project Committee.

The collision analysis completed by CIMA+ was presented and discussed. Based on the collision analysis and the public opinion survey that was distributed to the residents in HRM, the emphasis areas for the SRSP were determined. It was highlighted that the data driven emphasis areas versus the public's opinion had a large overlap.

Finally, the purpose of countermeasures and the roles of the stakeholders were discussed. The delivery of countermeasures is a shared responsibility and it takes everyone to make this project successful.

"HRM citizens and visitors are safe where they live, work, and play."
- HRM Strategic Plan 2017-21

Next Steps

In Workshop #1, stakeholders were provided with road safety program sheets. They will summarize their existing and future proposed safety programs for each emphasis area in these sheets and return them by **July 14, 2017**. Stakeholders need to consult with their managers and peers in their respective organizations to come up with future proposed programs which they are able to deliver. They need to discuss internally about available resources, new resources, or reallocation of resources to deliver the newly proposed programs. Proposed countermeasures are those that are realistic and are measures that can be implemented to work towards Vision Zero.

Stakeholders will be, as required, invited to attend Workshop #2 which is intended to discuss and finalize countermeasures that will be implemented by each stakeholder group within the HRM.

Workshop #2 will be held on Monday August 14, 2017.

The SRSP Advantage

The essence of a strategic road safety plan is to ensure that the strengths and resources of all safety stakeholders are coordinated rather than working in their individual silos. This collaborative effort is more effective than the sum of the parts because it targets resources towards a common set of objectives and avoids redundant, duplicate and inefficient activities. The goal is to institutionalize road safety across all applicable Municipal stakeholders.

Location and Time

Workshop #1 was held on June 8, 2017 from 9:15 AM to 2:30 PM at the Harbour East-Marine Drive Community Council Meeting Room in Dartmouth.

Jody DeBaie, P.Eng.
Transportation Road Safety Engineer
Transportation and Public Works
Halifax Regional Municipality
debaiejo@halifax.ca

Brian Malone, P.Eng., PTOE
CIMA+
Vice President, Transportation
289-288-0287 ext. 6802
brian.malone@cima.ca

Workshop #1 Stakeholder Attendees

PROJECT COMMITTEE

Roddy MacIntyre	Halifax Regional Municipality
Taso Koutroulakis	Halifax Regional Municipality
Jody DeBaie	Halifax Regional Municipality
Brian Malone	CIMA+
Pedram Izadpanah	CIMA+
Ahsan Habib	Dalhousie University

STEERING COMMITTEE

Tanya Davis	HRM Integrated Mobility Project Team
Sarah Rodger	Halifax Regional Municipality
David MacIsaac	HRM Active Transportation Group
Jim Butler	HRP
Robert Doyle	RCMP

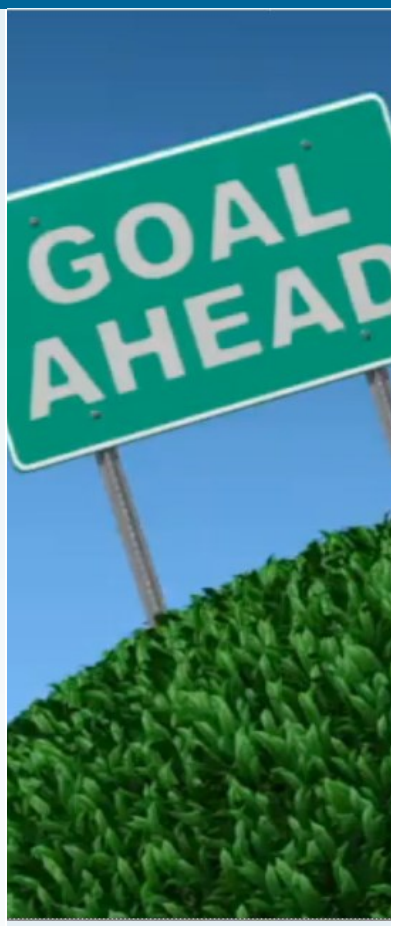
STAKEHOLDER COMMITTEE

Kelsey Lane	Halifax Cycling Coalition
Milena Khazanavicius	Walk 'n Roll
Eliza Jackson	Ecology Action Centre
Sara Campbell	Dalhousie Transportation Collaboratory
Kelly Poirier	Public Health
Marybeth Wright	Public Health
Michael Croft	NSTIR
Kevin Alexander	Halifax Transit
Norm Collins	Crosswalk Safety Society
Ted Upshaw	HRM Public Safety Office
Johanna Stork	CNIB

HALIFAX

August 14, 2017
Workshop #2

Strategic Road Safety Plan



Introduction

Motor vehicle collisions in the Halifax Regional Municipality have resulted in, on average, over 1,400 personal injuries and approximately 14 fatalities annually. Halifax has recognized that, despite having an active safety program to address motor vehicle collisions, a new and broader-based approach is required and, as a result, has proposed the development of a Strategic Road Safety Plan (SRSP) for the Municipality. The SRSP will set out the goals, objectives, and action plans to guide the Municipality and its road safety partners towards creating safer roads and reducing the number of motor vehicle collisions, road fatalities and injuries.

In general, SRSPs provide a structured, data-driven approach to road safety and consequently, provide the best opportunity to improve the safety performance of a road network. A SRSP is best achieved through collaboration among a diverse group of stakeholders from engineering, enforcement, and education as a consultative group to ensure a road safety culture is explicitly considered and embedded in the vision of the organization.

Progress in safety management and stakeholder involvement can be seen in the strategic road safety programs which have been adopted in a number of Canadian and international jurisdictions. These jurisdictions have realized that traffic safety needs to be managed strategically, from visioning and explicit goals, to design and implementation, to evaluating progress, to delivery of a communication and marketing plan and continual updating of the plan. In Canada, several provinces (including Alberta and Quebec) and a number of municipalities (including Toronto, Edmonton, Ottawa, London and Hamilton) have adopted the strategic safety program approach, or a variation of it, in an effort to continue to reduce the number and severity of road collisions. This is consistent with the visions of the United Nations Decade of Action for Road Safety and the Transport Canada Road Safety Strategy for 2015 and 2025.

Inside This Issue

About the Halifax SRSP

The Halifax Regional Municipality (HRM) is developing a Strategic Road Safety Plan (SRSP) to improve road safety in the Municipality. The SRSP will set out the vision, goal, and action plans to guide the Municipality and its road safety partners towards creating safer roads and reducing the number of collisions and, thus road fatalities and injuries. HRM will work and consult with a broad range of partners including the Province, police, and advocacy groups in the development of this plan. The plan will consider safety issues and priorities identified through an analysis of collision data as well as those perceived by the public. The SRSP is to be conducted within the framework of a range of policies and must place road safety as a corporate objective.

Workshop #2 Purpose

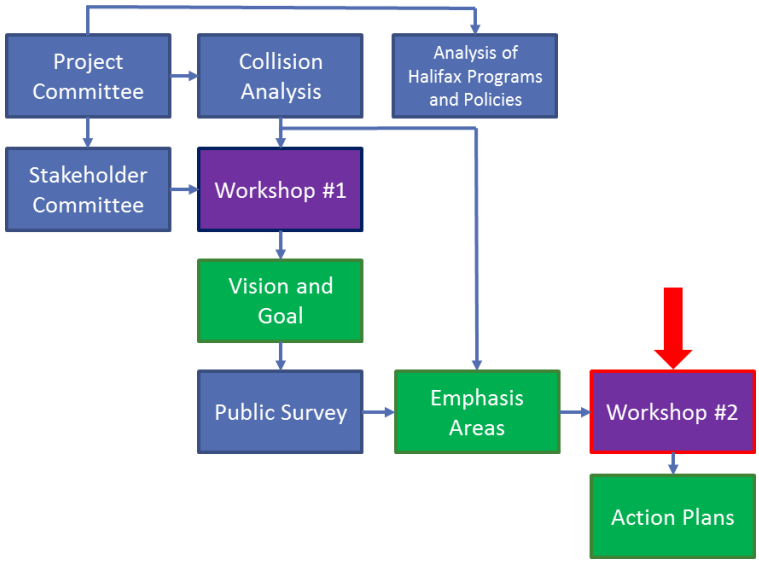
CIMA+ was retained to develop a Strategic Road Safety Plan for the Halifax Regional Municipality. The process of the development of the SRSP included two workshops with agency representatives who contribute to road safety in the Municipality (stakeholders) as well as input from the public.

Stakeholders were engaged in Workshop #1 to develop a long-tern vision and shorter-term goal for the SRSP. Workshop # 1 also reviewed and endorsed the emphasis areas which will be the focus for collision reduction. The stakeholders were invited to attend Workshop #2 where the objective was to:

1. Present the current progress of the SRSP;
2. Discuss the purpose and importance of countermeasures;
3. Review existing countermeasures and discuss the role of the stakeholders for each;
4. Review future countermeasures suggested by the stakeholders as well as the consultant team and discuss the role of the stakeholders for each;
5. Identify timelines for each countermeasure (immediate or long term); and
6. Review the next steps for the SRSP.

"Life and health can never be exchanged for other benefits within the society."

- Vision Zero



Halifax Regional Municipality Strategic Road Safety Plan Development Process

Emphasis Areas

An emphasis area is a grouping of a large number of collisions with similar characteristics which provides a excellent opportunity to improve safety from a technical, political, and/or social perspective. Generally, six to eight emphasis areas are selected for a SRSP. The sources for the selection of emphasis areas come from:

- Collision analysis
- Public opinion
- Social, political, and practical constraints

Through a public opinion survey, the public provided their feedback and concerns about traffic safety in the HRM. The public's comments and perceptions about road safety were generally consistent with the results of the data analysis. The older demographic was the one suggested emphasis area which was not included because: (1) it is not supported by the collision data; (2) countermeasures dealing with older demographic drivers often are controlled by the Province; (3) older demographic as considered indirectly as part of pedestrian population.

Using the information from collision analysis and public input, stakeholders selected the following seven emphasis areas:

Intersections
Young Demographic
Pedestrians
Aggressive Driving
Distracted Driving
Impaired Driving
Cyclists

Action Plan and Countermeasure Development

A countermeasure refers to an engineering, education, or enforcement treatment or strategy designed to reduce the occurrence or severity of collisions. They are directed at emphasis areas in an effort to reduce collisions. Countermeasures are chosen based on:

1. The likelihood of success; and
2. The ability of one (or more) of the partner agencies to deliver the action.

In advance of Workshop #2, the stakeholders and the Project Team were asked to provide a summary of existing traffic safety actions, as well as propose new actions. Actions were matched to the emphasis areas. The consultant team then added a range of proposed action items drawn from several sources. The added measures came from both scientific reporting agencies that maintain databases of action items for which results have been analyzed, and from actions chosen by other similar jurisdictions for their plans. The lists were presented as follows:

- Wherever possible, a balanced approach was taken for each emphasis area to provide measures from all of the engineering, enforcement and education sectors;
- A suggested lead agency was proposed for each countermeasure; and
- The effectiveness of countermeasures was noted, where information is available.

SRSP Vision and Goal

A vision statement takes a high-level, long-term viewpoint about what everyone would ultimately like to achieve. A goal statement is about what can be achieved in the short term and should be quantitative in nature.

After discussions, the stakeholders agreed on the following vision and goal statements for the HRM Strategic Road safety Program:

Vision:

Moving towards zero fatalities and injuries for people using any mode of transportation.

Goal:

15% reduction of fatal and injury collisions within five years (2018-2023).

Workshop #2 Summary and Review

The purpose of Workshop #2 was to discuss the action plans for the SRSP. To set the stage for the discussion, there was a brief review of the value of a structured strategic road safety program and a review of the emphasis areas and of the vision and goals. There was some additional discussion of the vision and goals, but no change was made at the meeting.

The action plans consist of two components – organizational efforts that will form the foundation of the plan and the actual countermeasures. The countermeasures are divided into current efforts and new initiatives. To achieve a greater degree of road safety in Halifax, more resources must be directed to countermeasures targeted on the emphasis areas. This means either redirecting resources (typically staff time and funding) away from existing programs, or adding new resources. The motto is "Do Different or Do More".

The SRSP is data-driven. It was noted that the HRM engineering staff currently do not have the data analysis tools to make the decisions required to properly implement the countermeasures. Also, there is not a regular process for moving data from the province to the HRM. The RCMP and the HRP do have analysis tools which they use to target enforcement activities. Thus, an immediate and key priority is the development of a database and analysis tools. The SRSP cannot proceed without this step being completed first. While the data system is being established, a formal safety committee can be established, which will ultimately be the committee to guide the implementation of the SRSP, but which can coordinate current activities in the meantime.

Existing countermeasures were discussed in the context of whether any might be reduced or eliminated to provide resources for more effective alternate countermeasures. Additional, future, countermeasures were reviewed in detail. Each potential countermeasure was examined in detail to ensure that it:

- Focused on one or more of the emphasis areas
- Was feasible/practical/implementable
- Did not overlap or reproduce another existing measure
- Had the correct lead and support agencies identified

Brian Malone (CIMA+) Presenting the SRSP

Workshop #2 Summary and Review con't...

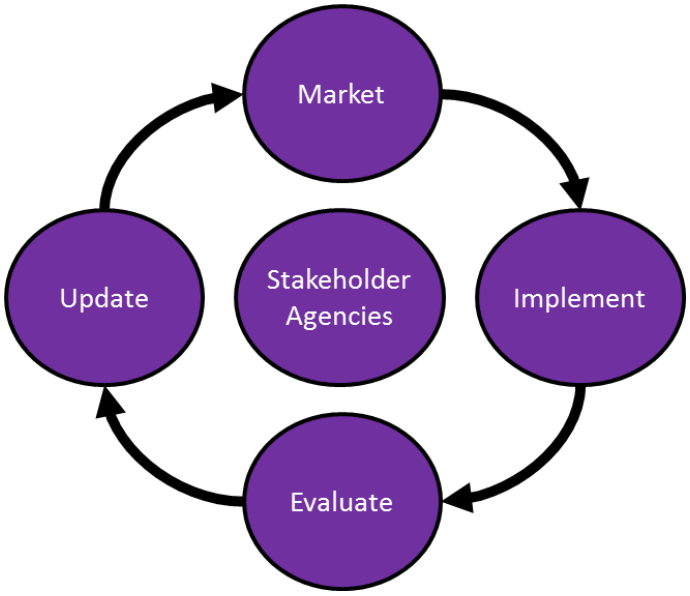
As a result of the excellent and in-depth discussion, the countermeasure list will be significantly revised to consolidate some parallel items and create new, more generic countermeasures. Also, it was decided that the outreach/information program, even though it will have a number of components aimed at specific emphasis areas and target audiences, should be managed under a single project.

Next Steps

Following Workshop #2, CIMA+ will revise the proposed future countermeasures program based on the comments from the workshop and provide it to HRM for review with the stakeholders. The stakeholders will be asked to confirm that they can, and are willing, to commit to responsibility for delivering all programs assigned to them. The stakeholders were also asked to return to their respective agencies and review all existing road safety programs to see if they are still relevant and effective.

Once the final comments are received from the stakeholders, CIMA+ will finalize the existing and future countermeasure tables. The CIMA+ team will then begin drafting a final report on the project.

This was the final workshop for the stakeholders, but the journey is really just beginning. They will now enter into a process of resourcing and implementing the countermeasures, evaluating individual outcomes and determining if the overall SRSP goal has been met.



Continuous Efforts After SRSP Development

The SRSP Advantage

The advantage of the directed approach of a SRSP is in three areas. First, decisions are primarily data-based. Collision data is analyzed, and this provides direction which will result in the largest possible collision reductions for the resources applied. Second, resources are coordinated. By having a team effort, redundancy and overlap are reduced and efforts coordinated to produce the best results. Finally, a dedicated effort, with a high profile, leads to the safety culture being embedded in the stakeholder organizations. This means the goal is to have many or all roadway decisions, not just those directly associated with the SRSP, should be at least partially based on road safety.

Location and Time

Workshop #2 was held on August 14, 2017 from 9:00 AM to 2:00 PM at the Harbour East-Marine Drive Community Council Meeting Room in Dartmouth.

Jody DeBaie, P.Eng.
Transportation Road Safety Engineer
Transportation and Public Works
Halifax Regional Municipality
debaiejo@halifax.ca

Brian Malone, P.Eng., PTOE
CIMA+
Vice President, Transportation
289-288-0287 ext. 6802
brian.malone@cima.ca

Workshop #2 Stakeholder Attendees

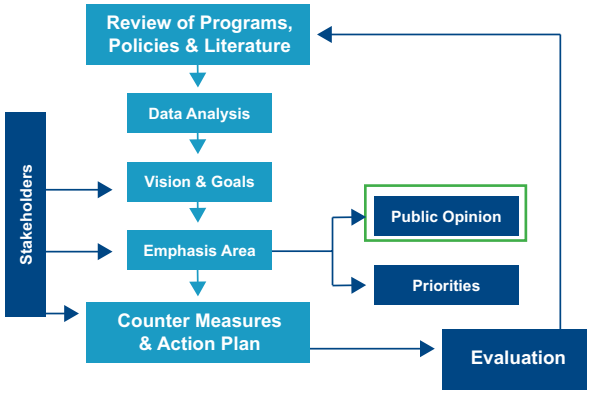
Taso Koutroulakis	HRM Traffic Management
Roddy MacIntyre	HRM Traffic Management
Jody DeBaie	HRM Traffic Management
Tanya Davis	HRM Transportation Planning
David MacIsaac	HRM Active Transportation Group
Anne Sherwood	HRM Project Planning & Design
Ted Upshaw	HRM Public Safety Office
Michaelyn Thompson	HRM Corporate Communications
Robert Doyle	RCMP
Ian Flewwelling	Halifax Regional Police
Eliza Jackson	Ecology Action Centre
Kelly Poirier	Public Health
Kirk Dauphinee	Halifax Transit
Kevin Alexander	Halifax Transit
Norm Collins	Crosswalk Safety Society
Brian Malone	CIMA+
Hart Solomon	CIMA+

HALIFAX STRATEGIC ROAD SAFETY PLAN

The plan will aim to identify traffic issues within the municipality and set out targets and actions for road safety improvements for the next five years (2018-2022).

The Halifax Regional Municipality (HRM) is developing a Strategic Road Safety Plan (SRSP) to improve road safety in the Municipality. This SRSP will set out the vision, goal, and action plans to guide the Municipality and its road safety partners towards creating safer roads and reducing the number of collisions and, thus road fatalities and injuries. The HRM will work and consult with a broad range of partners including the Province, police, and advocacy groups in the development of this plan. It is very important for us to have a better understanding of safety issues and priorities perceived by the public.

Let us know what your priorities are regarding road safety so we can make improvements where it counts most.



Strategic Road Safety Plan Work Flow

Provide your input on road safety. Fill out a survey at:

www.halifax.ca/surveys

The survey closes on May 19, 2017.

Brian Malone, P.Eng, PTOE
Consultant Project Manager
CIMA Canada Inc.
brian.malone@cima.ca

Jody DeBaie, P.Eng.
Transportation Road Safety Engineer
Transportation & Public Works | Traffic Management
debaiejo@halifax.ca

Traffic Safety Priorities for Halifax Regional Municipality

Halifax Regional Municipality is developing a strategic plan to improve road safety in the Region, and the public's perception on traffic safety issues is an important part of this process.

The objective of this survey is to better understand what the residents of Halifax think the Region's priorities should be in terms of reducing the number of people injured or killed in traffic collisions. The information provided in this survey is kept strictly confidential. Thank you for participating.

1. In a typical week, what percent of time do you spend traveling by walking, car, public transit, etc.? These trips include going to work, school, shopping, entertainment, etc. Please have the total percentage of all the choices add up to 100%.

Walking	
Car (including taxis)	
Public Transit (bus, ferry)	
Bicycle	
Motorcycle	
Other	

Traffic Safety Priorities for Halifax Regional Municipality

2. Halifax Regional Municipality wants to set road safety priorities that reflect the needs of the public. Not every safety issue can be a priority at this time. Please rate what you feel should be the priority level for addressing safety in the following areas:

	5 - Highest Priority	4 - High Priority	3 - Medium Priority	2 - Low Priority	1 - Not a Priority	*No opinion*
Aggressive Driving	○	○	○	○	○	○
Distracted Driving	○	○	○	○	○	○
Impaired Driving	○	○	○	○	○	○
Seat Belt and Car Seat Usage	○	○	○	○	○	○
Speeding	○	○	○	○	○	○
Bicyclists	○	○	○	○	○	○
Motorcyclists	○	○	○	○	○	○
Older Drivers	○	○	○	○	○	○
Pedestrians	○	○	○	○	○	○
School Zones	○	○	○	○	○	○
Unlicensed, Suspended, or Revoked License Drivers	○	○	○	○	○	○
Young Drivers	○	○	○	○	○	○
Animal-related Collisions	○	○	○	○	○	○
Buses	○	○	○	○	○	○
Intersections	○	○	○	○	○	○
Nighttime Collisions	○	○	○	○	○	○
Roadway/Lane Departure Collisions	○	○	○	○	○	○
Trucks	○	○	○	○	○	○
Vehicle-Train Collisions	○	○	○	○	○	○
Winter Weather-Related Collisions	○	○	○	○	○	○
Work Zone Related Collisions	○	○	○	○	○	○

3. Do you have any other concerns regarding road safety in Halifax Regional Municipality that was not covered in the previous question?

Traffic Safety Priorities for Halifax Regional Municipality

4. Do you have a valid Nova Scotia driver's license?

- ◯ Full license (Class 5)
- ◯ Graduated license (Class 7/Learner's)
- ◯ No license

5. Where do you work or go to school?

- ◯ Within Halifax Regional Municipality
- ◯ Not within Halifax Regional Municipality
- ◯ Not applicable

6. Please provide the first three digits of your postal code where you work or go school.

7. Where do you live?

- ◯ Within Halifax Regional Municipality
- ◯ Not within Halifax Regional Municipality

8. Please provide the first three digits of your postal code where you live.

9. What is your gender?

- ◯ Female
- ◯ Male
- ◯ Other Identification

10. What is your age

- ○ Under 14 years old
- ○ 15-24 years old
- ○ 25-34 years old
- ○ 35-44 years old
- ○ 45-54 years old
- ○ 55-64 years old
- ○ 65 years or older

Halifax Regional Municipality SRSP: Existing Countermeasure Programs

Emphasis Area 1: Intersections

COUNTERMEASURE TYPE	COUNTERMEASURE TITLE	LEAD AGENCY	PARTNER AGENCIES	COUNTERMEASURE DESCRIPTION
Engineering	Curb Bump-Outs	HRM Traffic Management and Road Operations		Curb bump-outs are being used as well as pedestrian ramp upgrades/installations (size, orientation, condition).
Engineering	Pedestrian Walk Intervals	HRM Traffic Management		Adjusted pedestrian crossing times to 1.0 m/s (from 1.2 m/s).
Engineering	At-Grade Rail Crossing Audits	HRM (Traffic Management)		Continue inspecting railway crossings to ensure they meet regulations and standards.
Engineering	Intersection Improvements	HRM Project Planning & Design		When intersections are planned for renewal or capital work, geometric design considerations are included to shorten pedestrian crossing distances and reduce turning radii.
Engineering	Collision Analysis	RCMP-GRC		Based on data from E-Collision, F&SI, Impaired driving analysis including administrative suspensions and E-Ticketing SOTs. Total reportable collision baseline to be established using E-collision data.
Engineering	Complete Streets	Child Safety Link		Advocate for an all ages and abilities approach/complete streets when opportunities for community planning occur to ensure intersections are safe for children, youth and families - this is ongoing and Maritime wide.
Engineering	Policy, Planning, and Design Support for Municipalities, Commuity Organizations	Ecology Action Centre		Acitivities include: provide key input and feedback on planning and infrastructure projects based on best practices to support safety at intersections.
Engineering	Pilot Bump-Outs Through Bike Corrals	Halifax Cycling Coalition		Temporary on-street bike parking innitiatives that use the clear zone at intersections to pilot a bump out. 5 projects to date: 1. Spring Garden Road 2. Bauer Street 3. Ochterloney Street 4. Portland Street 5. Agricola Street
Engineering	CYCLE snApp Application	HCC	Dalhousie, Esri	An online web-based crowdsourcing app used to identify problem intersections and infrastructure in HRM. Public data.
Engineering	Review Collision Data for Site of Collisions (crosswalks, intersections, parking lots, etc)	Public Health		Collecting data as part of larger AT + Health Indicators Report. Reporting cycling to be determined, but the idea is to report every 3-5 years on progress. Perhaps one year summary reports could also be prepared depending upon data availability.
Education	Basic Operator Training (BOT) Driving +/- 5 hours per day driving	Halifax Transit		
Education	Driving Simulator	Halifax Transit, FAAC Incorporated		
Education	Share the Road Nova Scotia Campaign	DalTRAC		Share the Road Nova Scotia is a community-based Share the Road awareness campaign for Nova Scotia. The goal of the campaign is to promote positive behavioural change and safer sharing of the roads for all road users in Nova Scotia - Pedestrians, Cyclists, and Motorists. Countermeasure also applies to young drivers, pedestrian collisions and bicyclist collision emphasis areas.

Halifax Regional Municipality SRSP: Existing Countermeasure Programs

Emphasis Area 1: Intersections

COUNTERMEASURE TYPE	COUNTERMEASURE TITLE	LEAD AGENCY	PARTNER AGENCIES	COUNTERMEASURE DESCRIPTION
Education	Heads Up Halifax Annual Crosswalk Safety Campaign	HRM (Corporate Communications)		This campaign focuses on the education and awareness of being safe in crosswalks. Messaging is targeted to both drivers and pedestrians. Corp Comms uses a suite of communications material that include, print, online, social, and Halifax Transit busboards. As incentive, there is the possibility of coordinating a contest (TBD).
Enforcement	Intersection Safety	Halifax Regional Police		Intersection Safety is the January and October road safety theme. Take extra care to enforce sections of the MVA that will keep pedestrians and all road-users safe: 125 (all); 93(2)(b) Failing to yield rights of way to pedestrian on green arrow light; 93 (2) (E) Failing to yield to pedestrian on turn at red light; 93 (2) (F) Failing to yield to pedestrian or other vehicle (specify) at flashing red light; 93 (2) (H) Failing to yield to pedestrian at walk light; 126 Pedestrian failing to obey traffic signal; 127(2) Failing to use sidewalk.
Enforcement	Evidence-Led Enforcement via Comstat and Reporting (STEP/Proactive)	RCMP-GRC		

Halifax Regional Municipality SRSP: Existing Countermeasure Programs

Emphasis Area 2: Young Demographic

COUNTERMEASURE TYPE	COUNTERMEASURE TITLE	LEAD AGENCY	PARTNER AGENCIES	COUNTERMEASURE DESCRIPTION
Engineering	Causal Factor Enforcement Statistics (CFES) Analysis	RCMP-GRC		Based on historical data to demonstrate trends.
Engineering	School Travel Planning	Ecology Action Centre, Nova Scotia Schools, School Boards, municipal departments, community organizations		Work with school community to determine safest routes for students walking and biking to school. Work with school commuity to determine aspects of the built environment that are unsafe or feel unsafe for students walking and biking to school. Work to introduce traffic calming to reduce speed and discourage aggressive/distracted driving in school zones. Deliver programs to ensure students walking and biking to school arrive safely. Create awareness within school communities.

Halifax Regional Municipality SRSP: Existing Countermeasure Programs

Emphasis Area 3: Pedestrian Collisions

COUNTERMEASURE TYPE	COUNTERMEASURE TITLE	LEAD AGENCY	PARTNER AGENCIES	COUNTERMEASURE DESCRIPTION
Engineering	Semi-Annual Pedestrian Safety Reporting	HRM (Traffic Management)	HRP, RCMP, HRM (Road Operations and Construction).	Reports are compiled twice a year to summarize pedestrian collision data within the ROW, infrastructure upgrades (such as: pedestrian ramp installations, curb modifications as signal equipment/programming upgrades) completed to enhance pedestrian safety. Updates on ongoing pedestrian safety initiatives are also provided.
Engineering	Pedestrian Walk Intervals	HRM (Traffic Management)		Adjusted pedestrian crossing times to 1.0 m/s (from 1.2 m/s).
Engineering	Pedestrian Collision Review	HRM (Traffic Management)	HRP, RCMP	When a serious pedestrian collision occurs a post incident review is conducted to see if there are any potential engineering changes that could be made to mitigate future conflicts.
Engineering	New Sidewalk Program	HRM (TPW and Transit)		Adding approximately 3km of new sidewalk annually.
Engineering	Walkability Initiative	HRM (TPW)		Adding in curb extensions or refuge medians to street rehabilitation projects to improve comfort and safety for pedestrians.
Engineering	New Multi-Use Pathway	HRM (TPW)	Volunteer Community Groups	i.e "trails" or "greenways" program – adding segments of 3-4m wide off-road or separated facilities for walking and bicycling
Engineering	Pedestrian Infrastructure Advocacy	Child Safety Link	Ecology action center, other AT groups, municipal and provincial government officials	Participate in and support actions for knowledge translation, advocacy and policy to influence infrastructure to keep kids safe while walking - ongoing and Maritime wide
Engineering	Accessible Built Environment	CNIB		Consulting with city planners, construction managers, and engineers to create a more accessible built environment.
Engineering	Request and Gather Discharge Abstract Database information for ICD Codes V01-V09 Related to Pedestrian Hospitalizations (noting age, gender of victim).	Public Health, NSHA (Central Zone); Department of Health and Wellness (CIHI data)		Collecting data as part of larger AT + Health Indicators Report. Reporting cycling to be determined, but the idea is to report every 3-5 years on progress. Perhaps one year summary reports could also be prepared depending upon data availability.
Engineering	Request and Gather HRP Collision Data for Pedestrian Related Collisions (info from 58A).	Public Health, NSHA (Central Zone); Halifax Regional Police		Collecting data as part of larger AT + Health Indicators Report. Reporting cycling to be determined, but the idea is to report every 3-5 years on progress. Perhaps one year summary reports could also be prepared depending upon data availability.
Engineering	Data Analysis and Research	Crosswalk Safety Society of Nova Scotia (CSSNS)		Analysis and research completed by volunteers.

Halifax Regional Municipality SRSP: Existing Countermeasure Programs

Emphasis Area 3: Pedestrian Collisions

COUNTERMEASURE TYPE	COUNTERMEASURE TITLE	LEAD AGENCY	PARTNER AGENCIES	COUNTERMEASURE DESCRIPTION
Engineering	Monthly HRP/RCMP Vehicle-Pedestrian Collision Reports	Halifax Regional Police/RCMP		Maintains awareness of pedestrian safety
Engineering	RA-5 Crosswalk Upgrades	HRM Traffic Management		Upgrading all RA-5 crosswalks to the new standard. Update includes adding side mounted flashers, upgrading down lighting, and reprogramming controller box to include pedestrian extend feature.
Engineering	RRFB Crosswalk Pilot Project	HRM Traffic Management		Piloting Rectangular Rapid Flashing Beacons at 4 crosswalk locations.
Education	New Halifax.ca Website	HRM (Corporate Communications)		The halifax.ca website was updated in 2017. The new website contains information on crosswalk safety as well as information for individuals with hearing or vision impairments. https://www.halifax.ca/transportation/cycling-walking/crosswalk-safety https://www.halifax.ca/index.php/transportation/streets-sidewalks/traffic-information-individuals-vision-or-hearing-impairments
Education	BOT and CTP Video Pedestrian Awareness (Component of Defensive Driving Program)	Halifax Transit, TAPTco		This video presents strategies for moving the bus around pedestrians
Education	Pedestrian Safety Messaging	Child Safety Link		Promotes pedestrian safety messages through social media
Education	Orientation and Mobility Lessons	CNIB		One on one Orientation and Mobility Lessons for people who have vision loss (safe travel techniques). Service available throughout Canada.
Education	Making Tracks Cycling Skills Education	Ecology Action Centre		Making tracks cycling skills education/ Activities include: providing skills and safety education for child and youth for all modes of active transportation, and providing training for leaders to deliver Making Tracks programming in NS schools and community groups.
Education	Advocacy Campaign to Reduce Speed Limits	Walk N'Roll		Invested in collective campaign to reduce speed limits.

Halifax Regional Municipality SRSP: Existing Countermeasure Programs

Emphasis Area 3: Pedestrian Collisions

COUNTERMEASURE TYPE	COUNTERMEASURE TITLE	LEAD AGENCY	PARTNER AGENCIES	COUNTERMEASURE DESCRIPTION
Education	Active Transportation Indicators	IWK, Dalhousie University, Community Health Board, RCMP, HRP, Ecology Action Centre, Bicycle Nova Scotia		The team is producing an Active Transportation Indicators report
Education	Crosswalk Education – Pedestrians and Drivers Brochure	Crosswalk Safety Society of Nova Scotia (CSSNS)		Developed and distributed by CSSNS
Education	Media	Crosswalk Safety Society of Nova Scotia (CSSNS)		CSSNS participated in regular media spots to promote crosswalk awareness.
Education	Asvocate Pedestrian Safety During SWITCH Events	Crosswalk Safety Society of Nova Scotia (CSSNS)		Creates and maintains awareness of pedestrian safety
Education	Crosswalk Safety Flag Programs	Crosswalk Safety Society of Nova Scotia (CSSNS)		Flags placed in holders at both ends of selected crossing. Pedestrians use flags to indicate intent to cross.
Enforcement	Implement Evidence-Led Enforcement via Comstat and Reporting (STEP/Proactive)	RCMP-GRC		
Education	AT Subcommittee to the Provincial Road Safety Advisory Committee	TIR, Bicycle Nova Scotia, HRM, Ecology Action Centre, Walk N Roll, Our HRM Alliance		Purpose of the committee is to draft recommended changes to the current Motor Vehicle Act to further the safety of Vulnerable Road users. In addition to legislative changes, the subcommittee also suggests appropriate education and promotion recommendations.

Halifax Regional Municipality SRSP: Existing Countermeasure Programs

Emphasis Area 4: Aggressive Driving

COUNTERMEASURE TYPE	COUNTERMEASURE TITLE	LEAD AGENCY	PARTNER AGENCIES	COUNTERMEASURE DESCRIPTION
Engineering	Administrative Order Respecting Traffic Calming	HRM Traffic Management	Transit, PP&D, Police, Emergency Services	A new AO was adopted in Feb. 2016 to provide a clear and concise criteria and method for assessing Municipal streets in order to determine the need and suitability of implementing traffic calming measures. https://www.halifax.ca/index.php/transportation/streets-sidewalks/traffic-calming-safer-streets
Engineering	Collision Analysis	RCMP-GRC		Collision analysis based on data from E-Collision, F&SI, Impaired driving analysis including administrative suspensions and E-Ticketing SOTs. Total reportable collision baseline to be established using E-collision data.
Engineering	Causal Factor Enforcement Statistics (CFES) Analysis	RCMP-GRC		Based on historical data to demonstrate trends.
Education	BOT and CTP Video Road Rage (Component of Defensive Driving Program)	Halifax Transit		This dated video discusses road rage and how it effects drivers. Trainees seem to get distracted by the old technology (cell phones)
Education/Enforcement	Use of Road Safety Calendar and Public Education Opportunities	All police agencies		Speeding /Aggressive Driving is the Nova Scotia Road safety monthly theme for April. Traffic members are required to spend minimum of 2 hours daily enforcing sections related to each monthly theme.
Education	Partial Sight Pedestrian Awareness	CNIB		We encourage people who have partial sight to use an ID cane for street crossings, even if they don't need a white cane all the time. Drivers are more cautious when they see someone using a white cane.
Education	Share the Road Magnets	Ecology Action Centre		Groups distributed over 2000 Share the Road Magnets, raising awareness for the importance of providing sufficient space to cyclists on the road.

Halifax Regional Municipality SRSP: Existing Countermeasure Programs

Emphasis Area 5: Distracted Driving

COUNTERMEASURE TYPE	COUNTERMEASURE TITLE	LEAD AGENCY	PARTNER AGENCIES	COUNTERMEASURE DESCRIPTION
Engineering	Highlighting Crosswalks	HRM Traffic Management		Piloting different options to bring attention to crosswalks (RRFB's, crosswalk flags, fluorescent yellow-green signs, variable speed signs)
Engineering	Collision Analysis	RCMP-GRC		Collision analysis based on data from E-Collision, F&SI, Impaired driving analysis including administrative suspensions and E-Ticketing SOTs. Total reportable collision baseline to be established using E-collision data.
Engineering	Causal Factor Enforcement Statistics (CFES) Analysis Based on Historical Data to Demonstrate Trends.	RCMP-GRC		
Education	BOT and CTP Video Curbing Distracted Driving (Component of Defensive Driving Program)	Halifax Transit		This video relies heavily of statistics and industry specific examples of distracted driving. It does a good job of creating awareness of the hazards of distracted driving.
Education/Enforcement	Use of Road Safety Calendar and Public Education Opportunities	Halifax Regional Police, RCMP-GRC; Media		Members enforce individually and take part in static road checks where spotters are used to observe violations. Members spend at least two required hours enforcing related sections. Traffic members have conducted several media interviews on radio, paper and TV regarding distracted driving.

Halifax Regional Municipality SRSP: Existing Countermeasure Programs

Emphasis Area 6: Impaired Driving

COUNTERMEASURE TYPE	COUNTERMEASURE TITLE	LEAD AGENCY	PARTNER AGENCIES	COUNTERMEASURE DESCRIPTION
Engineering	Collision Analysis	RCMP-GRC		Collision analysis based on data from E-Collision, F&SI, Impaired driving analysis including administrative suspensions and E-Ticketing SOTs. Total reportable collision baseline to be established using E-collision data.
Engineering	Causal Factor Enforcement Statistics (CFES) Analysis Based on Historical Data to Demonstrate Trends	RCMP-GRC		
Enforcement	Evidence-led Enforcement via Comstat and Reporting (STEP/Proactive)	RCMP-GRC		
Education	BOT and CTP Component of Defensive Driving Program	Halifax Transit		Discussion around effects of drugs, alcohol and fatigue on driving. Stresses the importance of maintaining a clean license.
Education	Use of Road Safety Calendar and Public Education Opportunities	RCMP-GRC		
Enforcement	Impaired Driving	HRP	RCMP, TIR, Department of Justice	In December HRP takes part in the launch of Operation Christmas and also conducts weekend evening check points with other organizations such as CN police, RCMP and MP's.

Halifax Regional Municipality SRSP: Existing Countermeasure Programs

Emphasis Area 7: Bicyclist Collisions

COUNTERMEASURE TYPE	COUNTERMEASURE TITLE	LEAD AGENCY	PARTNER AGENCIES	COUNTERMEASURE DESCRIPTION
Engineering	Causal Factor Enforcement Statistics (CFES) Analysis	RCMP-GRC		Based on historical data to demonstrate trends.
Engineering	Installation of Side Guards on Municipal Vehicles	Halifax Regional Municipality (TPW)		Side guards are (to be) fitted on municipal vehicles and to prevent pedestrians and bicycles from becoming trapped under the vehicle. This has been included in all of the construction tenders led by TPW.
Engineering	Complete Streets	Halifax Regional Municipality (TPW)		2014 Regional Plan requires streets to be designed to support pedestrians, bicyclists, and public transit, for all ages and abilities (T-16,T-17). Adopt Complete Streets guiding principles for the design and maintenance of municipal streets (addressed in IMP)
Engineering	Protected Bike Lanes	Halifax Cycling Coalition		The Halifax Cycling Coalition produced On Track 2020, beginning work on the project in 2012. The proposal demonstrates the budget, engineering, and importance of protected bicycle lanes to increase the safety of people who currently ride a bicycle. Reduce injury, risk of injury, increase ridership. Protected bicycle lanes appeal to the 60% of people who say they are interested in riding a bike, but don't currently feel safe doing so. The project is being adopted by the integrated mobility plan, with a plan to form a minimum grid of bicycle lanes by 2020.
Engineering	Discharge Abstract Database information for ICD Codes V01-V09 Related to Cyclist Hospitalizations (noting age, gender of victim).	Public Health, NSHA (Central Zone); Department of Health and Wellness (CIHI data)		Collecting data as part of larger AT + Health Indicators Report. Reporting cycling to be determined, but the idea is to report every 3-5 years on progress. Perhaps one year summary reports could also be prepared depending upon data availability.
Engineering	HRP Collision Data for Pedestrian Related Collisions (info from 58A).	Public Health, NSHA (Central Zone)	Halifax Regional Police	Collecting data as part of larger AT + Health Indicators Report. Reporting cycling to be determined, but the idea is to report every 3-5 years on progress. Perhaps one year summary reports could also be prepared depending upon data availability.
Education	Try-a-Ride Program	HRM Parks and Recreation		Try-a-Ride program – teaching bike skills and safety at community events and Oval
Education	Share the Road Safety Education/Brochure	Halifax Regional Municipality		

Halifax Regional Municipality SRSP: Existing Countermeasure Programs

Emphasis Area 7: Bicyclist Collisions

COUNTERMEASURE TYPE	COUNTERMEASURE TITLE	LEAD AGENCY	PARTNER AGENCIES	COUNTERMEASURE DESCRIPTION
Education	BOT and CTP Video Share the Road (Component of Defensive Driving Program)	Halifax Transit	Chicago DOT and Chicago Transit Authority	Leads to comments like "the cyclists need to see this too". Creates awareness about cyclists.
Education	Use of Road Safety Calendar and Public Education Opportunities	RCMP-GRC; Media		
Education	Children Cycling Education	Ecology Action Centre and other cycling organizations	Child Safety Link	Participate in and support actions for knowledge translation, advocacy and policy to influence infrastructure to keep kids safe while cycling
Education	Halifax Bike Week Education and Promotion	HRM (TPW, Corporate Communications, Community Groups)		Education and promotion activities (e.g. bike videos, safety training, new rider training)
Education	Injury Prevention	Child Safety Link		Injury Prevention as it relates to cycling: - Promotion of Proper helmet use resources (in English, French and Arabic) to parents and community groups(postcards and on social media content)
Education	Making Tracks Cycling Skills Education	Ecology Action Centre		Making Tracks Cycling Skills Education. Activities include: providing skills and safety education for child and youth for all modes of active transportation, and providing training for leaders to deliver Making Tracks programming in NS schools and community groups.
Education	Cyclist Collision Card	HCC	Bicycle Nova Scotia, Dal Bike Centre	The Halifax Cycling Coalition printed 1000 cycling collision cards to distribute to cyclists. The wallet-sized folding panel card displays what to do in the case of a collision,
Education	Cyclist Safety Course	HCC		"Urban Cycling 101" designed to enhance skills and knowledge needed to cycle safely in the city. Expert trainer. Safety materials distributed to participants. Average of 8 participants per course. Designed to help people of all ages
Education	I LIGHT HFX (distributed 400 sets of lights to cyclists without lights through outreach efforts)	HCC	MEC, TIR	400 people who previously did not have access to bike lights received education and a set of lights. Increased visibility of the cyclist, improving the safety of all road users.
Education	AT Subcommittee to the Provincial Road Safety Advisory Committee	TIR, Bicycle Nova Scotia, HRM, Ecology Action Centre, Walk N Roll, Our HRM Alliance		Purpose of the committee is to draft recommended changes to the current Motor Vehicle Act to further the safety of Vulnerable Road users. In addition to legislative changes, the subcommittee also suggests appropriate education and promotion recommendations.
Enforcement	Motorcycle/Bicycle Safety	Halifax Regional Police	RCMP, DOJ, Safety Services NS	HRP has been completing yearly check points with CAA to educate motoring public about bicycle safety and sharing the road. HRP traffic take part in launch of NS Safety Services bike month with several agencies such as Justice and RCMP.

Halifax Regional Municipality SRSP: Existing Countermeasure Programs

Other

COUNTERMEASURE TYPE	COUNTERMEASURE TITLE	LEAD AGENCY	PARTNER AGENCIES	COUNTERMEASURE DESCRIPTION
Engineering	Signal lights were converted to LED a few years ago.	HRM Traffic Management		
Engineering	Upgrading Streetlights	HRM Traffic Management		HRM has an ongoing project to replace all traditional high-pressure sodium streetlights in the Halifax region with energy efficient LED technology. The project was initiated to comply with changes to the provincial Energy Efficient Appliances Act, however the increased lighting could have an impact on overall road safety and visibility at night. Initial media release: https://www.halifax.ca/home/news/led-streetlight-conversion-project-begins-week
Engineering	Monitor Fatal and Serious Injury Collision Results for the Division	RCMP-GRC		Monitor fatal and serious injury collision results for the Division on a quarterly basis. Monitor Causal Factor Enforcement Statistics (CFES) by District/TS on a quarterly basis
Engineering	Policy Review and Analysis Relating to Public Health Impacts of Non-health Related policies (Centre Plan, Integrated Mobility Plan, etc).	Public Health, NSHA (Central Zone)		Potential to conduct Health Impact Assessments or share public health comments on a variety of plans, policies and initiatives at the municipal level.
Education	Road Safety Messaging	Public Health		Broadly, public health works to disseminate key messages related to road safety (i.e. car seat safety) which may occur through our family drop in clinics with new moms.
Education	Promoting Active Transportation	Public Health		Through health promoting schools work, we also have staff who encourage walking school buses and other active transportation initiatives.

Halifax Regional Municipality SRSP: Existing Countermeasure Programs

Other

COUNTERMEASURE TYPE	COUNTERMEASURE TITLE	LEAD AGENCY	PARTNER AGENCIES	COUNTERMEASURE DESCRIPTION
Education	Injury Prevention	Child Safety Link, Atlantic Collaborative on Injury Prevention (ACIP)		We are currently in the process of creating a decision makers guide for injury prevention stakeholders in Atlantic Canada that will outline best practice policies and interventions that provincial, municipal and organization leaders can implement to injuries for children under 14—AT will be a part of this report. Release date will be Spring/summer 2018.
Education	Driver Refresher Training	Halifax Transit		As part of our collision management, Operators with 2 preventable collisions in a 6-month period (1 on if on probation) meet with a trainer and drive for coaching. This training is also offered for Operators that receive driving complaints.
Education/ Enforcement	Occupant Restraints in March	Halifax Regional Police, RCMP		Monthly campaign. Use of road safety calendar and public education opportunities. Members enforce individually and take part in static road checks where spotters are used to observe violations.
Education/ Enforcement	Construction Zones July	Halifax Regional Police, RCMP		Monthly campaign. Use of road safety calendar and public education opportunities. Members enforce individually and take part in static road checks where spotters are used to observe violations.
Education/ Enforcement	Back to School Sept	Halifax Regional Police, RCMP		Monthly campaign. Use of road safety calendar and public education opportunities. Members enforce individually and take part in static road checks where spotters are used to observe violations.
Education/ Enforcement	Winter Road Safety in November	Halifax Regional Police, RCMP		Monthly campaign. Use of road safety calendar and public education opportunities. Members enforce individually and take part in static road checks where spotters are used to observe violations.

Halifax Regional Municipality Strategic Road Safety Plan: Future/Proposed Countermeasure Programs

Initial Actions

COUNTERMEASURE TYPE	COUNTERMEASURE TITLE	LEAD AGENCY	PARTNER AGENCIES	COUNTERMEASURE DESCRIPTION
Overall	Creation of a Road Safety Team	HRM (Traffic Management)	All Partcipating Agencies	Create a team including all leading agencies and other stakeholders primarily committed to greater safety for all road users. Create team now and use team to more effectively deliver current programs, develop safety branding and develop safety culture. Team will then be in place and ready to take on action items of SRSP when data becomes available. SRSP team will: develop actions, lead and ensure implementation, secure funds, measure effectiveness (output and outcomes) at pre-established timelines, modify and adapt action plan to meet the goal and objectives, be responsive and responsible, collaborate with all partners, be the voice of the vision and traffic safety culture in the Region - a role model to others. Need to appoint Chair, Secretary, Coordinator, and person responsible for ambassadors.
Overall	Implement data analysis system	HRM (Traffic Management)	NSTIR, HRP, RCMP, Health	Develop plan and acquire resources to implement an enduring approach to motor vehicle collision data management. Three components: 1) requlr data acqusition 2) data validation (quality control) and 3) development of analysis tools and techniques
Engineering	Recalibrated and Expanded Safety Performance Functions and Network Screening	HRM (Traffic Management)		Once data system is in place, develop SPFs. SPF (Safety Performance Functions) is used to estimate the average crash frequency for a specific site type based on traffic volume and roadway segment length. Network screening allows HRM to identify high priority areas.
Engineering	Development of Network Screening and High Collision Location Identification	HRM (Traffic Management)		Once data analysis system is in place, build filters into collision data system identifying abnormally high collision locations based on type of collision
Overall	Assess current programs	All		Assess current collision countermeasure programs for 1) degree of success; and 2) opportunity for further growth/expansion
Overall	Enhance current programs	All		Where evidence suggests and opportunity exists, increase size or frequency of existing safety programs
Overall	Reduce or eliminate current programs, applying resources to more effective programs	All		Where evidence suggests or no further opportunity exists, decrease size or frequency of existing safety programs, or eliminate entirely

Halifax Regional Municipality Strategic Road Safety Plan: Future/Proposed Countermeasure Programs

General - Outreach Program Development

COUNTERMEASURE TYPE	COUNTERMEASURE TITLE	LEAD AGENCY	PARTNER AGENCIES	COUNTERMEASURE DESCRIPTION
Overall	Development of an Outreach and Communications Program, including Branding	HRM (Traffic Management)	All Partcipating Agencies	Create an overall communications program including branding for the SRSP. The intent of the program will be to change driver/ pedestrian/ bicyclist behaviours. Within the umbrella will be a number of specific initiatives aimed at specific age groups and risky (collision-causing) actions using media appropriate for best reaching the age groups. This program is more effective if done as one program than individual items. The program components should also be coordinated with media and outreach from the province and other team members.

Halifax Regional Municipality Strategic Road Safety Plan: Future/Proposed Countermeasure Programs

Emphasis Area 1: Intersections

COUNTERMEASURE TYPE	COUNTERMEASURE TITLE	LEAD AGENCY	PARTNER AGENCIES	COUNTERMEASURE DESCRIPTION
Engineering	Optimizing signals	HRM (Traffic Management)		Implementing new signal control system to optimize and coordinate signal timings along corridors.
Engineering	Develop Multi-Modal Level of Service (MMLOS)	HRM (Planning & Development)	HRM (AT, TM, PPD, Transit)	Develop MMLOS to better assess road designs and impact of proposed developments for all road users
Engineering	Update municipal guidelines	HRM (TPW-Project Planning and Design)	HRM (P&D, AT, Road Ops, TM, P&R, HW, Transit)	Update municipal design guidelines (Red Book) to incorporate best practices for complete streets, intersections, roundabouts, and roadway design
Engineering	Intersection improvements for bicycles	HRM (TPW-Project Planning and Design)	HRM (AT, TM, P&D), NSTIR	Intersections with bikeways will change. Bike traffic signals, crossrides. Pavement markings.
Engineering	Address Signalized Intersections with Poorest Collision Histories	HRM (Traffic Management)	HRP, RCMP	Identify 10-20 worst intersections on an EB or other statistical basis. Build cutomized plan for each intersection based on collision patterns
Engineering	Traffic Signal Enhancements	HRM (Traffic Management)		Traffic signal enhancements may include: Add 3-inch yellow retroreflective sheeting to signal backboards, install signal backboards, add additional signal heads, replace signal lenses with optically programmable traffic control signal lenses add fully protected left turn phasing, revise left turn phasing by extending duration or eliminating TOD operation, setback loops, increased signal conspicuity, RTOR prohibition, Prohibit left or U-turns.
Engineering	Address Stop-controlled Intersections with Poorest Collision Histories	HRM (Traffic Management)	HRP, RCMP	Identify 10-20 worst intersections on an EB or other statistical basis. Build cutomized plan for each intersection based on collision patterns
Engineering	Stop Sign Enhancements	HRM (Traffic Management)		Implement stop sign enhancements as appropriate. Stop sign enhancements may include: Sight distance improvements, Add more or larger signs, Convert two-way to all-way stop, Add flashing beacons, Increase retroreflectivity of STOP signs, install larger or left side stop signs.
Engineering	Signage enhancements	HRM (Traffic Management)		Implement enhanced signage as appropriate. Changes may include: adding regional road number and/or symbol, auxiliary advance street name sign, overhead signs, review street name signage process (criteria for advance street name signs)
Engineering	Pavement Marking Enhancements	HRM (Traffic Management)		Enhance pavement markings as appropriate. Improvements may include: Guide lines Yield lines at rioundabouts and turn channels
Engineering	Intersection Review	HRM (Traffic Management)		Continue to assess potential conversions of existing intersections to roundabouts. Convert signalized intersections into single- or multi-lane roundabout - based on overall poor safety performance of existing locations where appropriate. Continue to consider roundabouts for new intersections.

Halifax Regional Municipality Strategic Road Safety Plan: Future/Proposed Countermeasure Programs

Emphasis Area 1: Intersections

COUNTERMEASURE TYPE	COUNTERMEASURE TITLE	LEAD AGENCY	PARTNER AGENCIES	COUNTERMEASURE DESCRIPTION
Engineering	High friction pavement	HRM (Traffic Management)	HRM (Project Planning and Design)	Improve pavement friction (High Friction Surfacing) - Urban / Rural Roadway Segments based on run off the road single motor vehicle (SMV) collisions on curves or rear-end collisions at stop or signal locations.
Engineering	Geometric Improvements	HRM (Traffic Management)		Engineering improvements may include revised intersection left turn lane offset and left turn signal phases
Engineering	Street lighting improvements at high collision intersections	HRM (Traffic Management)		Assess locations based on unusual numbers of night collisions.Develop or review policy for illumination of intersection, signalized and unsignalized; urban and rural. Provide or upgrade intersection illumination at sites not meeting criteria and having target collisions.
Enforcement	Stop Sign Compliance	HRP and RCMP	HRM Traffic Management	Enhance current data analysis by assisting definition of key locations by TOD/DOW for police enforcement by using network screening and other statistical tools
Enforcement	Traffic Signal Compliance	HRP and RCMP	HRM Traffic Management	Enhance current data analysis by assisting definition of key locations by TOD/DOW for police enforcement by using network screening and other statistical tools. Develop a program to integrate actions with the engineering program
Education	Outreach Program	TBD	All Partcipating Agencies	Please see separate description on page 2.

Halifax Regional Municipality Strategic Road Safety Plan: Future/Proposed Countermeasure Programs

Emphasis Area 2: Young Demographic

COUNTERMEASURE TYPE	COUNTERMEASURE TITLE	LEAD AGENCY	PARTNER AGENCIES	COUNTERMEASURE DESCRIPTION
Education	Active Transportation: supporting skills and safety training programs for children, teenagers, and young adults	Halifax Regional Municipality (Planning and Development)	Transit, HRSB, EAC, Universities, TPW, Health	Develop relationship with school boards and post-secondary institutions to promote active transportation, supporting skills and safety training programs for teenagers and young adults.
Education	Transit: supporting skills and safety training programs for teenagers and young adults	Halifax Regional Municipality (Planning and Development)	Transit, HRSB, EAC, Universities, TPW	Develop relationship with school boards and post-secondary institutions to promote transit use, supporting skills and safety training programs for teenagers and young adults.
Education	Young Drivers Education Campaign-Distracted and Impaired	Police		Focus on education related to distracted driving, impaired driving by alcohol and drug in secondary schools.
Education	Young Drivers Education Campaign-Skill Building	Halifax Regional Municipality (Traffic Management)		Engage Young Drivers of Canada to provide training for skill building, cognitive assessment and development, training for Co-drivers and resources for beginner drivers - will YDC add materials relevant to the local strategic plan to provide local awareness of local issues?
Education	Outreach Program	TBD	All Partcipating Agencies	Please see separate description on page 2.

Halifax Regional Municipality Strategic Road Safety Plan: Future/Proposed Countermeasure Programs

Emphasis Area 3: Pedestrian Collisions

COUNTERMEASURE TYPE	COUNTERMEASURE TITLE	LEAD AGENCY	PARTNER AGENCIES	COUNTERMEASURE DESCRIPTION
Engineering	Sidewalk modifications	Halifax Regional Municipality (TPW)	Transit	Ensure sidewalks, crosswalks, and transit stops are aligned and connected
Engineering	Complete Streets	Halifax Regional Municipality (Planning and Development)	TPW, Transit	Adopt "Complete Streets" guiding principles, giving walking, bicycling, and transit priority when allocating road right-of-way. Improve pedestrian safety through design treatments including visual/sensory cues, bump outs, or traffic calming, where appropriate. Applies to both new sidewalks and filling in gaps in existing network.
Engineering	New Sidewalk Program	Active Transportation		
Engineering	New Multi-Use Pathways	Active Transportation		
Engineering	Rural pedestrian infrastructure approach	Active Transportation		Commitment to establish approach to providing ped. infrastructure in rural communities.
Education	Walkability Program	Active Transportation		Improve pedestrian safety through design treatments including visual/sensory cues, bump outs, or traffic calming, where appropriate. Applies to both new sidewalks and filling in gaps in existing network.
Engineering	Highest Frequency/Rate Collision Locations	HRM (Traffic Management)		Develop action plan for worst 10 types of collisions. Consider rates/frequencies, consistency of collision patterns and crosswalk specific assessments.
Engineering	Traffic Signal Enhancements	HRM (Traffic Management)		Install leading pedestrian intervals, pushbuttons, countdown timers, and accesible pedestrian signals where collision data suggests a need.
Engineering	RA-5 Conversion to Traffic Signals	HRM (Traffic Management)		Replacement of RA-5 crossing control with partial or full signalization where collision data suggests a need.
Engineering	Enhanced pavement markings	HRM (Traffic Management)		Install higher visibility or specialized pavement markings where collision data suggests a need.
Engineering	Smart Channels or eliminate right turn slip lanes	Halifax Regional Municipality (Traffic Management)	Project Planning and Design	Convert traditional channelized right-turn to smart channel or eliminate where collision data suggests a need. See white paper for specific recommendations about design details, bus lanes, use of RA-5 protection, etc. See also Intersection Improvements
Engineering	Pedestrian refuge islands	Halifax Regional Municipality (Traffic Management)	Project Planning and Design	Identify locations - midblock pedestrian collisions on multilane roads. Install raised median with marked crosswalk where collision data suggests a need.
Education	Outreach Program	HRM Traffic Mangement	All Partcipating Agencies	Please see separate description on page 2

Halifax Regional Municipality Strategic Road Safety Plan: Future/Proposed Countermeasure Programs

Emphasis Area 4: Aggressive Driving

COUNTERMEASURE TYPE	COUNTERMEASURE TITLE	LEAD AGENCY	PARTNER AGENCIES	COUNTERMEASURE DESCRIPTION
Engineering	Traffic Calming for Local Bikeways	Active Transportation		Curb works,speed humps, pavement markings, and permanent speed cushions where collision data suggests benefit.
Enforcement	Enhanced program of identifying locations of aggressive driving causing collision for police enforcement	HRP, RCMP	HRM Traffic Management	Prepare a list of behaviours and locations to best apply police resources in a way that might reduce collisions. Tie programs to provincial or other initiatives to maximize publicity
Engineering/ Enforcement	Electronic feedback back signs including positive reinforcement	HRP, RCMP, HRM Traffic Management		Vehicle Activated Traffic Calming Signs, feedback speed signs, positive feedback signs. Use justification criteria being developed by TAC
Education	Outreach Program	HRM Traffic Management	All Partcipating Agencies	Please see separate description on page 2.

Emphasis Area 5: Distracted Driving

COUNTERMEASURE TYPE	COUNTERMEASURE TITLE	LEAD AGENCY	PARTNER AGENCIES	COUNTERMEASURE DESCRIPTION
Enforcement	Distracted Driving Location Identification	HRP, RCMP		Identify worst locations for "inattentive" driver action in collisions for police enforcement
Education	Outreach Program	TBD	All Partcipating Agencies	Please see separate description on page 2.
Education	Driver Education Campaign-Tweets	HRP, RCMP	TIR, Traffic Management	Look where you are driving- can be done by police media tweets

Emphasis Area 6: Impaired Driving

COUNTERMEASURE TYPE	COUNTERMEASURE TITLE	LEAD AGENCY	PARTNER AGENCIES	COUNTERMEASURE DESCRIPTION
Enforcement	Legislation and Enforcement	NSTIR	Departments of Health and Wellness and Justice, HRP, RCMP	Future legislation and enforcement strategies to address impaired driving.
Education	Outreach Program	TBD	All Partcipating Agencies	Please see separate description on page 2.

Halifax Regional Municipality Strategic Road Safety Plan: Future/Proposed Countermeasure Programs

Emphasis Area 7: Bicyclist Collisions

COUNTERMEASURE TYPE	COUNTERMEASURE TITLE	LEAD AGENCY	PARTNER AGENCIES	COUNTERMEASURE DESCRIPTION
Engineering	"All ages and abilities" bicycle network	Active Transportation		Implement an "all ages and abilities" bicycle network, with priority on connecting the regional center and transit terminals
Engineering	Monitor winter maintenance	Road Operations and Construction		Monitor winter maintenance of dedicated bicyclist facilities, and use data to improve winter maintenance strategies
Engineering	New Multi-Use Pathways under IMP	TPW		7km total. These are ped/bike infrastructure by either 2020 or 2022
Enforcement/ Education	Define locations of cyclist collisions for police enforcement	HRP, RCMP	Halifax Regional Municipality (Traffic Management)	Assess locations based on unusual frequency/rate of collisions. Prepare a list of behaviours and locations to best apply police resources in a way that might reduce collisions. Tie programs to provincial or other initiatives to maximize publicity.
Engineering	Bicycle signals and crossrides	HRM Traffic Management	AT	Identify locations with vehicle-bicycle or pedestrian-bicycle collisions of a type that would be prevented by bike signals or crossrides. Add separate phasing and/or bicycle signals. Install crossrides.
Engineering	Enhanced signage and pavement markings	HRM Traffic Management		Identify roadways with bicycle/vehicle collisions Install enhanced regulatory or warning signs or markings. Review and enhancement of current signage and pavement markings.
Education	Outreach Program	TBD	All Partcipating Agencies	Please see separate description on page 2.

nova scotia health authority

October 2nd, 2017

Dear Halifax Strategic Road Safety Plan Project Team,

Thank you for the opportunity to participate in the development of Halifax's Strategic Road Safety Plan (SRSP). Our transportation systems have clear public health impacts and as such we are thrilled to have been invited to participate on the Stakeholder Committee.

We understand that the ask of Public Health right now is to review the "countermeasures" assigned to Health in the draft Plan and indicate whether we are able to lead and/or support implementation of these actions. Prior to speaking about actions and implementation of the Plan, we would like to first offer a few general comments on the overall draft Plan.

Firstly, **we fully support the vision of Towards Zero** along with the underlying sentiment that any loss of life on our streets is unacceptable. As Peter Kissinger, Director of AAA Foundation for Traffic Safety, succinctly states: we must focus our efforts on shifting our culture from one that accepts injuries and fatalities as the cost of mobility to one that does not.[1]

In order to prevent serious injuries and fatalities on our streets we must ensure a multi-pronged approach to implementation currently outlined in the draft Plan. To this end, **we are encouraged by the comprehensiveness and the call for collaborative action from a number of partners inside and outside of government.** In order to be successful we must work with all orders of government, private businesses, and non-profit organizations to achieve our vision. Interestingly, in 2015, Public Health representatives attended a Vision Zero workshop in Truro, Nova Scotia hosted by the IWK Child Safety Link. At this workshop there was a call to form a Vision Zero Task Team. Unfortunately, as a result of lack of resources and the inability of one organization to lead the Task Team, it never materialized. We are encouraged that the draft SRSP notes the need to appoint a Chair, Secretary, and Coordinator for this Task Team. We are hopeful that the Municipality will function as the organization that can hold the reins of the Vision Zero Task Team in order to ensure the Team is both effective and sustainable.

The existing draft Plan calls for a significant investment in data and research. **We wholeheartedly support evidence-informed decision making and understand that local, timely, and relevant data is required to do so.** Here in Halifax we sorely lack basic data on transportation and have, until recently, kept the transportation data we do collect in organizational or government silos. Through this investment in data (through allocation of resources and staff time) we will be better equipped to monitor, evaluate, and learn from actions implemented. Ultimately, this increased understanding of the overall functioning of the transportation system - and more specifically collisions - is a strong commitment to acting together to improve community health.

In addition, through our review of the draft SRSP, we have noted a few missed opportunities we'd like to highlight for your consideration. We believe the Plan could be strengthened – to better support its overarching vision of no loss of life on our streets – through considering the following:

[1] https://www.aaafoundation.org/sites/default/files/SafetyCultureReport.pdf

What we understand as the current goal of reducing injuries and fatalities by 15% is vague. From year to year, the number of injuries and fatalities often fluctuates. **In order to more accurately report, ensure transparency, and maintain shared ambitions and expectations, we suggest a more detailed goal using totals from a specific year of reference (rather than an average).** Simply including a baseline year from which improvements will be measured will help. In addition, we suggest considering a more aggressive goal. For example, in their initial Traffic Safety Plan, the City of Copenhagen included a goal of reducing serious injuries and fatalities by 40% based on the years 2003-2005 and then increased their goal to 50% reduction between 2013-2020 (based on totals from the years 2009-2011).[2]

In framing of the SRSP, **we suggest including six "Es" instead of three to demonstrate a comprehensive, collaborative and equitable approach to implementation.** The SRSP would be improved by including countermeasures under Engagement, Evaluation, and Equity. The addition of engagement as a countermeasure would indicate a commitment to seeking community and stakeholder input into the achievement of the Towards Zero goals laid out in the Plan; while the inclusion of the evaluation countermeasure will provide valuable information to determine whether the Towards Zero goals are being met. The evaluation will enable the Plan to shift as needed and of course report on the successful milestones towards reaching the goals. The application of an 'equity lens' would aid in determining how countermeasures may be applied in different ways either by neighbourhood or among diverse populations. From a health perspective, equity occurs when all people can reach their full health potential and should not be disadvantaged from attaining it because of their race, ethnicity, religion, gender, age, social class, socioeconomic status, or other socially determined circumstance. In relation to the SRSP, the equity lens would provide a guide to determine whether the countermeasures could potentially create unintended negative impacts on a certain population or neighbourhood. Asking questions such as: how persons with mobility issues, visual or hearing impairment, etc., be impacted by a countermeasure; which neighbourhoods are seeing improvements, which need broader interventions (i.e. road-use assessment, transit planning and transit stop location assessment) are just a couple of examples of ways to ensure an 'equity lens' in the SRSP. Applying an equity lens is articulated in a few recent draft Plans, including the Integrated Mobility Plan and the Centre Plan. The Integrated Mobility Plan includes equity considerations when planning and developing active transportation facilities. The draft Centre Plan includes a policy statement around developing and incorporating an equity analysis when making municipal infrastructure, planning, and land use decisions (p 29).[3]

Given what we know and understand about vehicle speed and its impact on severity of injury and likelihood of fatality coupled with interest and discussion about speed management, **we think including a focus on speed management would strengthen the SRSP.** Much research demonstrates that vulnerable road users have a much higher chance of survival and less severe injuries the slower the vehicle is moving upon collision.[4] In 2014, the City of Calgary harmonized their school zone speed limits into a more comprehensive category called "playground zones".[5] We encourage the Project Team to

[2] file:///C:/Users/shavera/Downloads/1154_iGUpXeTKoQ%20(1).pdf

[3] http://centreplan.ca/

[4] www.who.int/violence_injury_prevention/publications/road.../speed_en.pdf

[5] http://www.calgary.ca/Transportation/Roads/Pages/Traffic/Traffic-safety-programs/School-zone-safety.aspx

consider this addition – and other countermeasures related to speed management – in the next iteration of the SRSP.

We appreciate the time and effort that municipal staff, the consultants and others on the Stakeholder Committee have committed to this project. It's clear that a well-detailed Plan has been developed in rather short order. As we noted above, road safety is a public health issue and as such, we are more than willing to continue to support implementation of the Plan. A more fulsome conversation about what this looks like and how these actions are resourced is needed. In addition, based on the draft countermeasures assigned to Health, we'd like to discuss the full spectrum of players within the "health" domain and explain a bit more about Public Health's focus and approach to our work. For example, colleagues within different Nova Scotia Health Authority departments (e.g., Mental Health and Addictions, Community Health Boards, Primary Health) and/or colleagues in "health" related organizations (e.g., IWK Child Safety Link, Heart and Stroke Foundation, United Way, Try Do) might be better aligned to support different SRSP initiatives. To that end, we would like to meet with the SRSP Project Team in the coming weeks to further discuss how Public Health can continue to support the SRSP and build our partnership with the Municipality.

Again, congratulations on a huge initial step in creating an in-depth Strategic Road Safety Plan for Halifax. We are optimistic with the initial draft and look forward to connecting and discussing how we can support updates to and implementation of the final Plan.

Sincerely,

Dr. Lisa Freeman, BSc (Hon), MD, CCFP, MPH, FRCPC
Medical Officer of Health,
Public Health – Central Zone

Original Signed

Holly Gillis
Healthy Communities Manager,
Public Health - Central Zone

Original Signed

Ali Shaver, MCIP, LPP
Healthy Built Environment Coordinator,
Public Health - Central Zone

Original Signed

Valerie Blair, MSc, PDt
Healthy Equity Consultant,
Public Health - Central Zone

Original Signed

cc: Dr. Trevor Arnason, Medical Officer of Health – Central Zone
Dr. Gaynor Watson-Creed, Deputy Chief Medical Officer of Health
Rita MacAulay, Public Health – Central Zone, NSHA
Kate Greene, Planning and Development, HRM
David MacIsaac, Transportation Public Works, HRM
Erica Adams, IWK Child Safety Link
Kelsey Lane, Halifax Cycling Coalition
Eliza Jackson, Ecology Action Centre

Attachment E

January 4, 2018

Dear Halifax Strategic Road Safety Plan Project Team,

Thank-you for the opportunity to meet on November 30th, to discuss our initial letter and the opportunity to comment further on health's role in the draft Strategic Road Safety Plan (SRSP). We'd like to reiterate our support for several aspects of the SRSP including the vision Towards Zero along with the underlying sentiment that any loss of life on our streets is unacceptable.[1] We also continue to be encouraged by the comprehensive approach and the call for collaborative action from a number of partners inside and outside of government. In addition we strongly support the focus on evidence-informed decision making and understand that local, timely, and relevant data is required to do so.

In terms of how we might support the countermeasures noted in the draft SRSP, we would be happy to join the Road Safety Team. Through our involvement on this team, we see opportunities to continue to bring a public health lens to the work of implementation. In addition, we will act as a liaison and connect to other health partners who could support the work. For example, we will be able to connect the SRSP to work within Youth Health Centres, and other departments within the Nova Scotia Health Authority Central Zone, such as Mental Health and Addictions[2], Community Health Boards[3] and the IWK (Child Safety Link[4]). The attached Excel spreadsheet includes our comments on the other asks of "health" noted in the most recent version of the Future Countermeasures documents shared with us. In addition to these comments, we'd like to reiterate two points discussed at our meeting on November 30th.

Education Countermeasures

The SRSP would be strengthened by the inclusion of a more fulsome, comprehensive and coordinated approach to outreach and education. Right now, the plan varies in degree of detail around education countermeasures. In order to do this component of road safety justice, we feel more time, attention and resources are needed to think through what a *comprehensive* education program for all emphasis areas would look like. This can either be done prior to submitting the Plan for Council approval or afterwards –

---

[1] https://www.aaafoundation.o rg/sites/default/files/SafetyCultureReport.pdf

[2] *Mental Health and Addictions*: This department leads work on substance abuse which links into key countermeasures. This department strives to create healthy communities where injuries due to substance impaired driving are minimized and those engaged in this risky behavior are able to seek the proper care needed

[3] *Community Health Boards*: Community Health Boards (CHBs) are a committed group of volunteers that support the work of the Nova Scotia Health Authority (NSHA) by advising on local perspectives, trends, issues, and priorities. For more information visit https://www.communityhealthboards.ns.ca/

[4] *IWK Child Safety Link:* Child Safety Link is the child and youth injury prevention program of the IWK Health Centre in Halifax, Nova Scotia. They are a team of health promoters and communicators dedicated to supporting caregivers and professionals in the Maritimes with the reliable information they need to keep children safe at home, on the road and at play. For more information visit http://childsafetylink.ca/about-csl/

led by the Road Safety Team. The lack of details in the current draft is confusing and might be misleading to the reader.

Young Demographics versus All Ages and Abilities (AAA)
We recommend broadening Emphasis Area 2: Young Demographic to All Ages and Abilities.
While we understand the need for specialized programming targeted at children and youth based on data analysis, countermeasures related to demographics (e.g., children and youth, seniors, people with mobility issues, other accessibility considerations) should be incorporated under the broader "AAA" framework. This suggestion aligns with the direction in the recently adopted Integrated Mobility Plan and also accounts for equity and accessibility considerations.

Thank-you for the opportunity to provide comments throughout this process. Should you have any additional questions, please do not hesitate to get in touch. We look forward to continuing to work together on the development and implementation of the SRSP for the Halifax region.

Sincerely,

Original Signed

Holly Gillis
Healthy Communities Manager,
Public Health - Central Zone, NSHA

Original Signed

Amber Walker
Healthy Built Environment Coordinator,
Public Health - Central Zone, NSHA

Original Signed

Rita MacAulay
Policy and Social Action Consultant,
Public Health – Central Zone, NSHA

Original Signed

Erica Adams
Health Promotion Advisor,
IWK Child Safety Link

Ecology Action Centre

tel. 902.429.2202 2705 Fern Lane,
fax. 902.405.3716 Halifax, NS, B3K 4L3

The Halifax Road Safety Plan represents an exciting and unique opportunity to improve the safety of all road users and make a demonstrated effort to reduce the number of deaths and serious injuries on Halifax's roadways to zero. The Ecology Action Centre applauds the initiative that Halifax is taking with this plan and is excited to see how it will intersect with the Integrated Mobility Plan to create streets where people feel safe and comfortable using any mode of transportation they choose.

From the initial draft of the proposed countermeasures, the Halifax Road Safety Plan has several components that have the potential to contribute to a robust plan. There seems to be heavy emphasis on the collection and analysis of data to inform engineering decisions for safer streets. To complement these engineering decisions, there are provisions for education and encouragement programs to work to influence human behaviour as we wait for improvements in the built environment. As an organization, the Ecology Action Centre has worked for years on various road safety initiatives. Working with schools and many other community partners, our Making Tracks and School Travel Planning programs directly encourage and enable children and youth across Nova Scotia, to walk and cycle safely in their communities. We also work at the municipal level with communities across Nova Scotia to support their active and sustainable transportation initiatives, which includes acting as a stakeholder on infrastructure and planning projects. Safety of all road users, but especially that of pedestrians and people cycling, is at the forefront of these discussions. We are eager to see how our programs can support the aims of the Halifax Road Safety Plan. However, there are aspects of the plan that will require clarification before we are able to commit to supporting it in full.

Vision and Goal Development

During the stakeholder workshops, there were several discussions about the goal and vision. There was concern on the part of several community organizations that the goal was not explicit enough in its intent to reduce the number of deaths and serious injuries on Halifax streets to zero by adopting the Vision Zero approach. By committing to Zero, Halifax would be making a bold statement that it is willing to put the resources necessary toward the plan to ensure its success. The actual target of 15% reduction in deaths and serious injuries is not a target that is representative of an increased effort. As the data shows, between ---- and ----, HRM saw a decrease of --% without any intervention. If the plan is meant to represent a deviation from our current efforts, then there is room for a more ambitious target. Vision Zero does not commit Halifax to achieving its target of zero deaths, rather striving to do its very best to achieve zero deaths by implementing a vision, plan and tools that provides us with the best chance of success.

Better Integration With Current Planning Efforts

The target of 15% reduction in current levels of serious injury and death on our roadways is based on data collected with a low mode share of people walking and cycling. This number has the potential to increase with an increase in the total number of people walking and cycling through the Integrated Mobility Plan. It is crucial that the counter measures take these, and other planning efforts like the Centre Plan which prioritizes pedestrian movement, in account when being developed. The current countermeasures do not, as of yet, demonstrate any evaluative or iterative processes which would allow for them to be redefined as current conditions begin to shift.

Ecology Action Centre

tel. 902.429.2202 2705 Fern Lane,
fax. 902.405.3716 Halifax, NS, B3K 4L3

Role of Stakeholders

From initial discussions and the resulting countermeasure chart, the role of stakeholders in the plan development process and resulting plan implementation is not entirely clear. Many of the education and community engagement components of the plan rely on delivery from various organizations. While the Ecology Action Centre recognizes the crucial role that our programs can play helping to achieve the aims of the Road Safety Plan, the resources do not currently exist for us to be able to deliver these programs across HRM. From the implementation plan, it needs to be clear if and where HRM will be supporting organizations to deliver their current programming at a municipality-wide scale and how that support can and will be sustained to ensure success.

Incorporating Equity Measures

Equity is at the centre of many Vision Zero and Road Safety Plans across North America. Applying a spatial and demographic lens to the data that was being collected in places like San Francisco allowed them to determine which communities were being affected by dangerous street design and layout more than others. The result was that low income communities where people rely on walking, cycling, and transit and communities comprised of seniors, people of colour, and other marginalized groups were twice as likely to live on a street where the majority of collisions occurred. We need to begin to incorporate better data collection procedures in order to capture the kind of data that not only communicates what kind of collision happened, but to who and where. This is the kind of data we need to incorporate into our decisions when we think about which projects to prioritize and should be a lens that we apply when deciding on priority projects as part of this plan.

HALIFAX CYCLING COALITION

The Halifax Cycling Coalition would like to reaffirm our support for the Strategic Road Safety Plan (SRSP) and applaud the Halifax Regional Municipality for undertaking an initiative to improve road safety. We believe with the development of the Integrated Mobility Plan, Centre Plan and and Active Transportation Plan the SRSP is timely and needed.

However, throughout the stakeholder engagement sessions, we were left with concerns and questions regarding the current direction of the plan.

Stakeholder Involvement:

Over the years the Halifax Cycling Coalition, has worked on various initiatives to improve road safety. On the outset of the SRSP discussions, it was made clear that stakeholder and community group support was needed in order for the plan to be successful. Throughout the process however, it has not been clear **how community groups are expected to contribute to the SRSP?** We would like clarification on the following:

- **Which of our current counter measurers are being included in the SRSP?**
- **How are these counter measurers being evaluate and by who?**
- **How is the SRSP ensuring the sustainability of the contributing initiatives that are being undertaken by community groups over the 5-year period?**

5 E's of Vision Zero

The counter measures in Workshop #2 were framed using 3 E's: **Engineering, Education, and Enforcement**.

At the 2017 Vision Zero international conference, there was clear emphasis that additional "E's" including **Equity and Engagement** are to be included in Vision Zero strategies and implementation plans. We believe there is a need to address Equity as part of the SRSP with a section that explicitly recognizes the disproportional impacts communities.

For example, the according to the most recent HRP data, people of color are three times more likely to be issued a ticket for traffic violations. Therefore, a strategy leading with enforcement disproportionately affects certain Halifax communities and enforcement should be balanced with an equity lens.

We also believe **Engagement** should be an emphasis area, as suggested by the Vision Zero Network. This should be separate from the education emphasis area, as in implies a conversation between community members and policy makers, versus Education which is a 1-way transfer of information passed-down from government and stakeholders to the community. A clear plan for engagement is lacking in the current SRSP.

HALIFAX CYCLING COALITION

Intersectionality

In the Strategic Road Safety Plan, there should be efforts made to address the **intersectionality** between road safety, and other priorities in HRM including housing, poverty and food security. For example, according to a 2016 study in by SFU, people in Halifax with incomes of < 20k per year depend more heavily on bicycling, walking and transit as a primary mode of transportation compared to the rest of the HRM population. Therefore, regard to road safety initiatives as it relates to safety in low-income populations is necessary, recognizing that pamphlets with road safety information, for example, may not be useful to the 38% of people in Nova Scotia with low-literacy levels.

Vision Statement & Goal

We would like to see a bold commitment to "Zero" within the vision of the Strategic Road Safety Plan. The language "*Towards* Vision Zero" is not a clear vision statement and final goal. We encourage use of language that clearly states the end vision to achieve zero vulnerable road user deaths and serious injuries. We have seen other cities across Canada firmly adopting Vision Zero language in the vision statement, and action-oriented language in the goals and mission.

Calgary:
Vision: Safe Mobility for all Users
Mission: "Striving for zero… pursuing transportation completely free of fatalities and injuries"

Edmonton
Vision: zero fatalities and major injuries in Edmonton

Toronto
Title: Vision Zero Road Safety Plan
Vision: The City of Toronto, with the commitment of all partners, aims to eliminate fatalities and serious injuries on city streets to create a safe and healthy city.

Finally, there was not consensus in the SRSP workshops that a goal of reducing serious road-related injuries and deaths by 15% was an ambitious enough goal, and there lacks clarity on how that number was determined.

We would like to thank the SRSP team for the opportunity to provide feedback and look forward to working together to improve the safety of the streets for all road users.

Draft Strategic Road Safety Plan (SRSP) response from the Crosswalk Safety Society of Nova Scotia (CSSoNS)

The Crosswalk Safety Society of Nova Scotia (CSSoNS) believes the development of a Strategic Road Safety Plan (SRSP) is a positive action if it is ambitious, comprehensive, and resourced. In its current draft form, CSSoNS cannot support the SRSP.

If the Plan is to have a meaningful impact, it must pose a serious challenge to the status quo.

To be successful, in places it will not be popular.

To be implemented, new resources must be brought to bear.

Vision and Goals:

CSSoNS believes a sense of urgency is needed, with ambitious and specific goals over a relatively immediate time horizon.

- The Vision should be Zero, not 'moving toward' Zero.
- The action of 'moving toward' should be part of the Goal. (Move toward the vision by reducing injury and fatal collisions x% over y years.)
- The proposed Goal (15% reduction over 5 years) is unclear, not sufficiently challenging, and not based on the evidence provided.

We also believe collision data should be disaggregated with sub-goals for vehicle-pedestrian collisions and vehicle-cyclist collisions and that significantly better and more frequent public reporting of collision and related data is required (ie vehicle collisions, vehicle-cyclist collisions, SOTs etc).

Pedestrians First:

CSSoNS believes Council's endorsement of the Centre Plan direction, and therefore the Pedestrian First principle, is very powerful. We believe the SRSP should challenge all road users, and in particular drivers, through greater enforcement and education.

- The discounting of proposed countermeasures, e.g. red light cameras and re-testing of drivers to our knowledge was not based on evidence.
- There is not enough enforcement or education - in particular regarding pedestrians and intersections, and those that are suggested are largely status quo.

Resourcing and Priorities:

CSSoNS believes the SRSP will be ineffective if not supported by additional budget as has been the case in other jurisdictions.

- Some benchmarking as to how much other jurisdictions have invested should be included.
- There is no indication of priority in respect of the 60+ countermeasures, each requiring an assessment of relative impact, expected cost, and required time frame for implementation.

As noted, CSSoNS believes a robust Strategic Road Safety Plan is necessary. We appreciate the opportunity to provide feedback during its development and look forward to continuing to contribute. However, as mentioned, we believe the current draft must be made much stronger in order to have an impact.

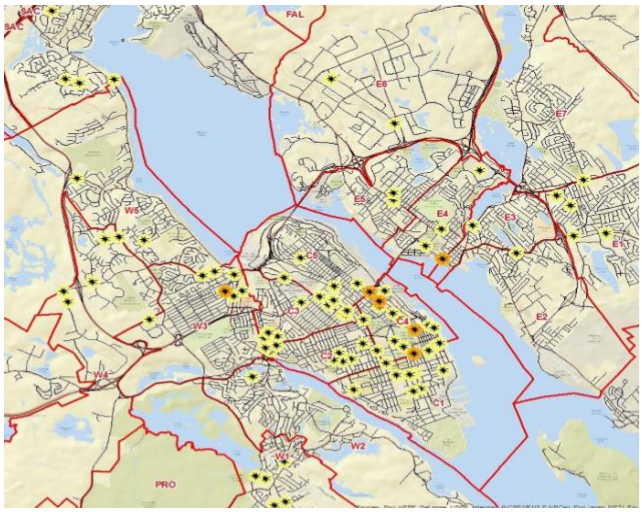
Road Safety Plan Checkpoint - Walk'nRollHfx Submission

- This HRM initiative is a very important and welcome initiative. We are thankful to be part of it.
- The draft Plan has lots of good recommendations, but, from a pedestrian perspective, it also falls short in a number of significant ways.
- We want to discuss a possible course correction prior to moving forward with the Plan. We highlight suggestions about **Context**, **Engagement** and **Action** below.
- We cannot support the Plan in its current form.

Attachment E

Context

- The Road Safety Plan needs to support the goals of the Centre Plan. Regional Council unanimously approved the Centre Plan direction in June 2017, including the 'Pedestrian First' core concept, and 'Complete Communities' and 'Human Scale'.



The Centre Plan seeks to maintain and create vibrant places and enhance quality of life. The Regional Centre will accommodate **strategic growth**, foster **complete communities** with access to multiple services and attractions, and place **pedestrians first** in a **human scaled** environment. Achieving a great Regional Centre requires that attention is paid to all four of these interconnected and mutually supportive components.

- Pedestrians and cyclists represent a growing segment of road users as car ownership and the number of people obtaining Nova Scotia drivers' licenses remains relatively flat or declining.[1]
- The need to ensure that the Road Safety Plan incorporates the concepts of Pedestrians First, Complete Communities and Human Scale is even more relevant because most pedestrian / vehicle collisions occur in the area covered by the Centre Plan (see image above).[2]
- Recommendations need to be framed with a pedestrian lens and guided by the Pedestrian First principle.
- From an economic, social and equity perspective, HRM needs to focus on the needs of unprotected road users. At some point during their daily comings and goings in HRM **everyone, even drivers, is an unprotected road user**. To protect all its residents, HRM must place the health and safety of vulnerable road users as its first priority.

Engagement

- No engagement process is perfect and we'll all learn from this one.
- We don't see a sufficient focus on pedestrians in the current summary documents.
- We feel that we're here to validate the recommendations, not contribute to them.
- We trust the public will have an opportunity to comment on the recommended actions and priorities.

[1] http://www.canadianbusiness.com/business-news/industries/consumer-goods/car-use-declining-in-north-america/
[2] Pedestrian / Vehicle Collisions – HRM: January to July 2017

Action

- **We have injuries; we have fatalities. We need to act now**!
- A vision without an actual commitment of budgetary and personnel resources needed to implement is nothing more than a hallucination. HRM needs to allocate real monies and personnel to make the Road Safety Plan really put Pedestrians First and to be consistent with the goals of the Centre Plan.
- The Road Safety Plan should recommend immediate actions and clear funding direction in subsequent budgets.
- We need not wait for planned 'recapitalizations' or Capital Budgets to make an impact. Implement safety measures with 'Paint 'n Pylons' to accelerate design changes.