



**CITY OF HAMILTON**  
**PUBLIC WORKS DEPARTMENT**  
**Corporate Assets and Strategic Planning Division**

<b>TO:</b>	Chair and Members Public Works Committee
<b>COMMITTEE DATE:</b>	April 4, 2016
<b>SUBJECT/REPORT NO:</b>	Hamilton Strategic Road Safety Program Update (PW16027) (City Wide) (Outstanding Business List Item)
<b>WARD(S) AFFECTED:</b>	City Wide
<b>PREPARED BY:</b>	David Ferguson Superintendent, Traffic Engineering 905-546-2424 Extension 2433 Martin White, C.E.T., Manager Traffic Operations and Engineering, 905-546-2424 Extension 4345
<b>SUBMITTED BY:</b>	Geoff Lupton Director, Energy, Fleet & Traffic Public Works Department
<b>SIGNATURE:</b>	

**RECOMMENDATION**

- (a) That the Hamilton Strategic Road Safety Program for 2016, as described in Appendix F to Report PW16027, be endorsed;
- (b) That the Hamilton Strategic Road Safety Program's Mission, Vision and Goal's be revised to include a third goal, "That the Hamilton Strategic Road Safety Program supports the Principals and Values of Vision Zero";
- (c) That the Senior Project Manager, Traffic Roadway Safety, currently funded for a three year period ending in 2017, be confirmed as a full time permanent position in the 2018 budget process with the position continuing to be funded from the Red Light Camera Reserve 112203 with no impact on the municipal tax levy;
- (d) That the Vision Zero – Comprehensive Plan to Improve Road Safety Motion be identified as complete and removed from the Public Works Committee Outstanding Business List.

**EXECUTIVE SUMMARY**

On August 15, 2014 City Council approved the Public Works Committee report PW14090 - Re-establishment of the Hamilton Strategic Road Safety Program (HSRSP). With this report Council approved the following:

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- (a) That Council endorse the re-establishment of the City of Hamilton's, Hamilton Strategic Road Safety Program (RSRSP) as outlined in Report PW14090 and the reformation of the Hamilton Strategic Road Safety Committee;
- (b) That all excess Red Light Camera (RLC) program fine revenues not required to build, operate, manage or maintain existing or future Red Light Camera sites, be allocated to road safety initiatives, as supported by the principles of the Hamilton Strategic Road Safety Program outlined in this report;
- (c) That a Senior Traffic Safety Technologist be hired on a contract basis and funded from the Red Light Camera Reserve (112203) with no impact to the municipal tax levy;
- (d) That the Senior Traffic Safety Technologist be hired for a contract term of three years;
- (e) That staff report back to Committee prior to completion of the contract term on the cost and benefits realized with this new position;
- (f) That \$545,000 be allocated from the Red Light Camera Reserve (112203) to fund 2014 safety initiatives as outlined in Report PW14090;
- (g) That the Hamilton Strategic Road Safety Committee report on the progress and results of the Hamilton Road Safety Program annually through the Public Works Committee.

The purpose of this report is to provide:

- An update on the Hamilton Strategic Road Safety Program as of year-end 2015.
- Provide the rationale for converting the Senior Project Manager, Traffic Roadway Safety from a contract position to a permanent FTE with no impact to the Levy.
- To seek Councils endorsement of the proposed HSRSP initiatives for 2016 outlined in this report.
- Council's approval to incorporate the principles of Vision Zero as an additional goal added to the HSRSP. This is in response to a City Council passed Motion on February 26, 2016 related to Vision Zero – Comprehensive Plan to Improve Road Safety.

Funding for all the roadway safety projects is financed by revenues realized from the Red Light Camera Program, itself a sustainable roadway safety program. Currently there is approximately \$9.5 million dollars accumulated in the reserve. These funds were committed by Council in report PW07116 "That all excess Red Light Camera Program fines revenues not required to build, operate or maintain existing or future Red Light Camera sites be allocated to road safety initiatives, as supported by the Hamilton Strategic Road Safety Program, subject to maintaining a minimum balance of \$100,000 in the Red Light Camera Reserve 112203". This is at no impact to the municipal tax levy.

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Hamilton Strategic Road Safety Committee

The Hamilton Strategic Road Safety Committee was re-convened on March 18, 2015. The committee is comprised of staff members from Hamilton Police Services, Public Health Services, Traffic Operations & Engineering, Transportation, and Communications. In addition, consultation has been held with multiple school boards, and the Seniors Advisory Committee. The goal of the Committee is to provide guidance, oversight and direction to the Hamilton Strategic Road Safety Program; to ensure additional stakeholder input and consultation is sought; and to ensure that the Program includes Education, Enforcement and Engineering, together to reduce collisions and improve safety for all roadway users in Hamilton. The Committee met eight times in 2015.

Hamilton Strategic Road Safety Program Results

Table 1 below provides a summary of the activities completed as of year-end 2015. The total cost of the projects completed as part of the Hamilton Strategic Road Safety Program as of year-end 2015 was approximately \$1.55 million (\$532,000 of this total was spent in 2013 and 2014 on Ladder crosswalks). Therefore the City spend in 2015 was actually \$618,000 in 2015 on the Traffic Safety Initiatives listed below. Staff were able to complete some additional safety enhancements from the \$545,000 identified in report PW14090. These initiatives were entirely funded from the Red Light Camera Reserve, with no impact to the levy.

Table 1 - Hamilton Strategic Roadway Safety Initiatives Completed as of Year-end 2015

Project/Program	Results to Date
A. Speed limit reductions to 40 km/hr	<ul style="list-style-type: none"><li>• 207 local roadway speed limit reductions to 40 km/hr primarily in School Safety Zones and on local residential roadways.</li><li>• Approximately 1,000 speed limit signs were installed at an approx. cost of \$200,000 (See Appendix A for locations).</li></ul>
B. School Safety Zones	<ul style="list-style-type: none"><li>• 60 School Area reviews and 110 School Safety Zones have been completed.</li><li>• 40 intersections converted to all-way stops.</li><li>• The installation of all way stop control and school area signing cost about \$60,000.</li><li>• Speed reduction signing and school zone flasher costs are captured separately (See Appendix B for locations).</li></ul>
C. New school zone flasher speed zones	<ul style="list-style-type: none"><li>• Three new school zone flasher speed zones were installed.</li><li>• Approximate cost of \$45,000 (See Appendix C for locations).</li></ul>

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Project/Program	Results to Date
D. Ladder crosswalks	<ul style="list-style-type: none"> <li>• 211 durable plastic ladder crosswalks have been installed across the City over the last three years (53 in 2013, 49 in 2014 and 109 in 2015).</li> <li>• The total 3-year expenditure for this initiative was approx. \$1.1 million (2013 at \$276,000, 2014 at \$256,000, 2015 at \$568,000)</li> <li>• Please see Appendix D for locations.</li> </ul>
E. Traffic Calming Projects	<ul style="list-style-type: none"> <li>• 17 temporary traffic calming projects completed.</li> <li>• Installations include bump outs and knock down sticks and 19 temporary speed humps.</li> <li>• Approximate cost \$100,000 (See Appendix E for locations).</li> </ul>
F. Emergency Detour Routes (EDR)	<ul style="list-style-type: none"> <li>• Red Hill Valley Parkway (RHVP) and Highway 403.</li> <li>• Cost approximately \$15,000.</li> </ul>
G. Permissive vs. prohibitive signing review for Truck Routes.	<ul style="list-style-type: none"> <li>• Review completed</li> <li>• Study cost \$28,550.</li> </ul>
H. Roadway safety adjustments	<ul style="list-style-type: none"> <li>• Such as Right Turn on Red signing for Seniors at Fennell and Upper Gage, and Mohawk and Upper Gage etc.</li> </ul>

**Senior Project Manager - Traffic Safety Engineering**

In January 2015, the Senior Project Manager (SPM), Traffic Safety Engineering position was successfully filled on a three year contract basis. The incumbent has been instrumental in successfully initiating and guiding road safety staff and projects to date. In addition, with the growth of Traffic safety initiatives, this position will now be supervising nine staff in total. This position provides project supervision and co-ordination of the growing project list as described in this report. The SPM also works with other municipalities, the provincial government, Councillors and interest groups, seniors, school boards, and citizens in order to ensure Traffic Safety Engineering provides timely and accurate responses to meet the needs of the citizens of Hamilton and to meet the Mission, Vision and Goals of the HSRSP.

Staff recommends that the Senior Project Manager, Traffic Roadway Safety, currently funded for a three year period ending in 2017, be confirmed as a full time permanent position in the 2018 budget process and the position continue to be funded from the Red Light Camera Reserve 112203 with no impact on the municipal tax levy. The estimated annual salary and benefit cost for the position is \$120,000. In 2016, Traffic changed the Community Traffic Section into the Traffic Roadway Safety Section to recognize the shift in strategic priority to Roadway Safety as a primary focus.

### Hamilton Strategic Road Safety Program for 2016

A summary of the HSRSP projects for 2016 are listed in Appendix F and are described in detail below.

#### 1.0 New Pedestrian Crossover Program

On January 1<sup>st</sup>, 2016, Bill 31 legislative amendments to the *Ontario Highway Traffic Act (H.T.A.) sections 140 and 176* came into effect that will require drivers to stop and yield the entire roadway to pedestrians and school crossing guards before proceeding at designated pedestrian crossovers and school crossings. With these amendments to the *Ontario Highway Traffic Act*, the Province has introduced three new variations of the pedestrian crossover. These new crossing treatments will allow pedestrians to cross the road right-of-way under a greater number of conditions and will provide municipalities with a more cost effective solution to ensure pedestrian safety. These changes to the H.T.A. result in significant change to the Rules of the Road for Ontario and will help address initiatives identified in the Hamilton Strategic Road Safety Program to make roads safer for school children, pedestrians and school crossing guards.

The major change in legislation is for new pedestrian crossovers and school crossings. A motorist must now yield the right of way to the pedestrian and not proceed until the pedestrian has completely left the roadway. The Pedestrian, must also ensure that the vehicle has sufficient space to come to a stop before they proceed with their crossing.

For 2016 staff will continue to work with municipal partners and community groups to raise awareness of existing regulations. Staff will develop a Communication Plan that will include educational and marketing materials prior to installation of any new pedestrian crossovers.

The following conditions must be met in order for a Pedestrian Cross Over (PXO) to be implemented under the H.T.A.:

- Appropriate pedestrian and vehicle volumes
- Pedestrian facilities on both sides of the road that are maintained in the winter
- Appropriate sight lines
- Located within a roadway segment with a posted speed limit of 60 km/h or less
- Accessibility for Ontarians with Disabilities Act (AODA) compliant curb cut and sidewalk depressions at the crossing
- Not within 200 meters of another crossing control treatment (unless pedestrian and vehicle volumes are high and there is a requirement for system connectivity)
- Illuminated with street lighting matching Provincial standards for such treatments

It is anticipated that Traffic will implement an initial pilot project of three to five (3-5) P.X.O. crossings in 2016. There will be an Education Program associated with the installation of these pedestrian priority crossings. This programs estimated cost is \$100,000 in 2016 and approximately \$500,000 in 2017 with a full rollout of various

pedestrian crossings complete with LED fast flashing beacons, and/or appropriate signing and pavement markings, being implemented at candidate locations for the future.

## 2.0 School Zone Safety Program

The purpose of this program is to provide designated safe routes to school, focused on providing children a safer, calmer environment to commute and also to encourage walking and cycling modes of travel compatible with a safer healthy lifestyle. Under the supervision of the Senior Project Manager, Traffic Safety Engineering, a school safety review process was created in 2015. The process involves technical safety staff from Traffic Engineering, Public Health Services, school boards, and representatives from each school and the Parent Teacher Association. To date, 60 school zone reviews have been conducted leading to 250 streets having the speed limit reduced to 40 km/hr, school safety zones, new school zone flashers and new all way stops have been installed around schools. In addition, this program has been used to install a multitude of durable ladder crosswalks at locations on designated routes to and from school and at locations controlled by supervised school crossing guards. This program will continue to operate and grow until a review has been conducted on roadways in proximity to all schools in Hamilton (60 of 188 have been completed to date).

## 3.0 Speed Limit Designation Review

The City of Hamilton along with other stakeholder Municipalities is working with the Provincial Government on an initiative to support a change in legislation to the *Highway Traffic Act* (H.T.A.) to enable Municipalities to reduce the default speed limit on municipal roadways to 40km/hr under the H.T.A., rather than existing 50km/hr as required under current legislation. In principal, this would allow Hamilton to reduce all local residential roadway speed limits to 40km/hr while signing all other designated collector and arterial roadways as 50km/hr or greater as required by roadway operating conditions, land use and roadway purpose.

Further consultation with the province, stakeholder municipalities and enforcement agencies including the Hamilton Police Services is required before this legislative change is enacted. It is not known at this time how long this process will take as it is in the initial stages of review by the Province. In the interim Hamilton has reduced the speed limit to 40km/hr using speed limit signs on roadways within school safety zones, and on roadways in internal subdivisions where the speed limit of 40km/hr is appropriate. These speed limit reductions can be installed concurrently with other traffic calming measures such as lane width reductions, bump outs speed bumps, bike lanes and other measures to control and calm the speed of vehicles. These individual reviews will continue until such time as the Province changes the existing H.T.A. legislation.

## 4.0 Red Light Camera and Intersection Safety Review.

As part of the Red Light Camera program Traffic recommended in report PW 14087 to install 6 new red light cameras. This report was subsequently approved at Council on August 16, 2014. In report PW 15073 approved by Council in October 2015 it was

further approved that approval be granted to continue to operate the Red Light Camera (RLC) Program in Hamilton through to the end of 2021. The Red Light Camera Program is a successful collision reduction program.

Collision statistics were reviewed at all existing red light camera locations over a 3 to 5 year period before and after the red light camera device was implemented. Based on the review of collision data, right-angle collisions on average have declined among the 12 intersections reviewed from a total of 133 collisions before installation to 74 collisions after. The total number of collisions at these locations has reduced from 439 collisions before installation to 363 collisions after installation. Staff also reviewed violations that the red light cameras have generated from the start of the program compared to current operation. It was noted that the average number of violations have declined from 6.9 violations/day to 3.5 violations/day from the start of the red light camera program in year 2000 to current operations. These numbers indicate that compliance has doubled since the inception of the red light camera initiative which contributes to improvements to the safe operation of the road network.

These statistics indicate that red light cameras are proving to be an effective tool in reducing right-angle and total collisions at locations where red light camera devices have been implemented. As part of the implementation of a red light camera, site specific characteristics are reviewed at each individual location including traffic signal amber and all-red clearance intervals. The amber and all red clearance intervals are calculated and based on roadway speed and intersection design which is a consistent practice throughout the City of Hamilton and the Province of Ontario. Vehicles that are travelling at a speed in close proximity to the posted speed limit would have sufficient space to come to a complete stop safely or if they are closer in proximity to the intersection be able to clear the intersection prior to the start of the all red phase. Overall, the Red Light Camera Program is responsible for a reduction in right-angle collisions. This indicates that this program is very successful in improving the safety and efficiency for road users in the City of Hamilton. Traffic staff will be reporting further to Public Works Committee and Council on the Red Light Camera Program in 2016.

#### 5.0 New Permanent Traffic Calming Program

In 2016 Traffic will implement a new pilot program to remove temporary traffic calming features and construct permanent traffic calming features using hard surface materials asphalt and concrete. The estimated (Est.) total program budget for 2016 is \$120,000.

- Permanent bump out – Locke @ Herkimer – Est. \$20,000 (Ward 1)
- Centre Median Island – Longwood @ Marion – Est. \$20,000 (Ward 1)
- Two Speed humps – Charlton near Kent – Est. \$20,000 (Ward 1)
- Permanent speed humps on Forbes and Citino – Est. \$20,000 (Ward 8)
- Permanent speed hump – Highgate near Bankfield – Est. \$10,000 (Ward 9)
- Permanent speed hump – Winterberry – Est. \$10,000 (Ward 9)
- Raised crosswalk Winterberry at trail crossing – Est. \$20,000 (Ward 9)

#### 6.0 New School Zone Flasher Upgrade and Replacement

Currently there are 69 School Zone Flashers in operation in Hamilton. A review has been conducted of the condition and age of the asset and it has been determined that almost all are out of date and are not compatible with current programming and operating technologies. Traffic recommends replacing these units over a five year period with School Zone Flashers that contain current programming technology and that can be integrated into the new Advanced Traffic Management Centre for control and monitoring and remote programming and operations. The annual budget cost per year for each of five years is \$120,000.

#### 7.0 New Collision System Software Upgrade and Collision Report

The City has been operating the current Collision Software since 1999 and it is outdated. The current software requires each collision to be individually keyed into the system. Data extraction and collision summary is cumbersome and has to be conducted by dedicated staff. It is recommended that the City research and purchase a state of the art software for Collision record processing). The new State-of-the-Art analytical Collision reporting tools are quick and easy to use, while remaining highly flexible. They provide analytical tools; GIS map based information, collision reports, intersection and mid-block collision diagrams, problem area analysis and viewing. Most new collision system software packages can be installed on the desktop of all technical traffic staff as well as the Hamilton Police Services and any trained individual can create reports to suit their needs. The anticipated front end costs for purchase and set up of the system and licencing is approximately \$100,000. Annual License and processing fees are estimated to be approximately \$15,000 per year.

Upon upgrading the software, Traffic will be able to easily and relatively quickly run statistics and produce the Traffic Safety Status Collision Report, an annual collision report summarizing collision statistics in Hamilton. This report was last produced in 2010 and must be updated. This report and the statistics are paramount to measuring collision rates in Hamilton, comparing Hamilton rates to other municipalities and for monitoring collision rate reductions as a result of the actions of the Hamilton Strategic Road Safety Program.

#### 8.0 Red Hill Valley Parkway (RHVP) and Lincoln Alexander Expressway (LINC) Vehicle Speed Monitoring

As Part of the Hamilton Strategic Road Safety Program, Traffic reported in report PW15091 respecting collision mitigation on the RHVP and The LINC and recommended a list of short term, medium and long term actions to reduce collisions. One of the recommendations to reduce collisions resulting from motorist speeding was to request additional Hamilton Police Services (HPS) speed and aggressive driving enforcement on these roadways. The Police have conducted speed enforcement over this winter and have observed that the incidents of speeding have reduced while Police are present. Traffic staff and HPS staff met in January 2016 to determine a permanent means for HPS to monitor the speed of traffic on the expressways. It was agreed that Traffic will utilize the new Advanced Traffic Management System technology and install



new speed monitoring cameras on the RHVP and the LINC and provide the HPS with a display of the images and recorded vehicle speeds, such that they can monitor expressway condition and provide enforcement based on real time conditions and observations. The estimated cost to provide the equipment and system monitoring is approximately \$200,000.

#### 9.0 Continuation of Projects/ Programs for 2016

- Speed limit reductions to 40km/hr primarily in School Safety Zones and on local residential roadways (Est. budget \$200,000).
- School Area reviews and establish School Zones via the use of signs and markings (Est. budget \$60,000).
- Install school zone flasher speed zones (Est. budget \$75,000).
- Install approximately 125 durable plastic ladder crosswalks as required (Est. budget \$700,000). Ladder crosswalks consist of two conventional crosswalk lines that run parallel with the direction of pedestrian travel connected by alternating bands of reflective white plastic creating a “ladder like” appearance. The alternating pattern of white lines and darker pavement provides contrast and enhances the visibility of the crosswalk which increases conspicuity and driver awareness. The increased visibility of the crosswalk better defines the pedestrian area with the goal of improving safety and walkability. These markings, on average, last for approximately five years, while latex based markings average between six and twelve months (depending upon traffic conditions). While the life-cycle costs of the two materials are similar, the durability and efficacy of the MMA product is far superior and results in a better end-user experience.
- Traffic Calming – temporary projects including: rubberized speed humps, bump outs, knock down sticks (Est. budget \$250,000).
- Emergency Detour Routes (EDR) installations on Hamilton roadways for the M.T.O. for the QEW EDR (Est. budget \$15,000).

#### 10.0 Other Traffic Safety Initiatives

Traffic Safety is the overall foundation of Traffic Engineering and staff undertakes projects and initiatives based on varying requests. Staff are working on completing the following initiatives listed below. The estimated budgeted for these other projects is \$150,000.

- Sherman Hub Study Area and partnership study with Mohawk College
- Safe Neighbourhoods Signage Program
- Recessed LED pavement markers pilot project (Whitechurch Rd)
- Neighbourhood Traffic Calming reviews
- Initiatives related to addressing Age Friendly Issues within the City of Hamilton

- Arterial radar message boards which is administered by Hamilton Police Services as well as the local neighbourhood radar boards which is administered by Traffic Engineering staff
- Safety requests from the public and Councillors

#### 11.0 Vision Zero – Comprehensive Plan to Improve Road Safety

Vision Zero is the 1997 Swedish approach to road safety thinking. It can be summarized in one sentence: No loss of life is acceptable. The Vision Zero approach has proven highly successful and has been adopted by City's such as the City of Edmonton and New York City and a number of other Municipalities in the United States.

At City Council on February 26, 2016, Council passed a Motion respecting Vision Zero, directing staff as follows:

That the General Manager of Public Works be directed, in consultation with other City Departments, as appropriate, to report to the Public Works Committee in coordination with the Transportation Master Plan, with a comprehensive plan to improve road safety to include, but not be limited to, the following:

- (i) A review of best practice from comparable jurisdictions including Vision Zero;
- (ii) A review of existing City policies, strategies and guidelines respecting road safety;
- (iii) An enhanced analysis of city-wide traffic collision data;
- (iv) Specific recommendations to improve road safety, particularly for pedestrians, cyclists and motorists, over the short term, medium and long terms;
- (v) An implementation plan and funding strategy, as appropriate;
- (vi) A regular reporting mechanism and track progress;
- (vii) Continued consultation with the Hamilton Cycling Committee, Hamilton Wentworth District School Board, Hamilton Wentworth Catholic District School Board and all other educational entities in the city of Hamilton who wish to participate; to include but not be limited to the Hamilton Catholic French District School Board, the Hamilton French District School Board, Mohawk College, McMaster University, and Redeemer College University, Public Health Services, Hamilton Police Services, Cycle Hamilton, the Advisory Committee for Persons with Disabilities, the Agriculture & Rural Affairs Advisory Committee and the Seniors Advisory Committee; and,
- (viii) The creation of a Road Safety Task Force is to be led by the Public Works Department.

The principles outlined in items (ii) through (viii) of the motion are incorporated into the Hamilton Strategic Road Safety Program. Please refer to Table 2 below for staff's responses to how they believe the HSRSP currently addresses motion items (ii) through (viii). Staff responses are in *Italic*.

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Table 2 – Staff Responses to Motions (ii) through (viii)

<p>(ii) A review of existing City policies, strategies and guidelines respecting road safety;</p>
<p>The Hamilton Strategic Road Safety Program and subsequently the Hamilton Strategic Road Safety Committee were formed in 2007 by direction of City Council (PW07116). Subsequently in August 2014, Council approved report PW14090 to re-establish this Strategic and comprehensive plan to improve road safety. Most other significant Canadian and North American Municipalities have similar programs to Hamilton; some are modelled after the Hamilton Strategic Road Safety Program which was one of the first programs of its kind in Ontario.</p>
<p>(iii) An enhanced analysis of city-wide traffic collision data;</p>
<p>Item 7.0 New Collision System Software Upgrade and Collision Report of the Hamilton Strategic Road Safety Program for 2016 speak to this item. Upgrading the City current software, will enable easily and relatively quickly run statistics and produce the Traffic Safety Status Collision Report, an annual collision report summarizing collision statistics in Hamilton. Commencing in 2016, Hamilton will re-introduce the Annual Traffic Safety Status Report as well high incident collision locations will be identified for collision reduction treatments. These reports will provide enhanced analysis of city-wide traffic collision data. The reports and the statistics are paramount to measuring collision rates in Hamilton, comparing Hamilton rates to other municipalities and for monitoring collision rate reductions as a result of the actions of the Hamilton Strategic Road Safety Program.</p> <p>A review of current collision trends shows that in general collision and fatality statistics over the past 25 years are in a downward trend. The implementation of Collision reduction measures on a holistic City wide basis only commenced in 2015. The statistics will need to be reviewed annually to determine the success of these programs in the coming years. Please refer to Appendix G for a 25 year Collision history of Total Collisions, Fatal and Injury Collisions in Hamilton.</p>
<p>(iv) Specific recommendations to improve road safety, particularly for pedestrians, cyclists and motorists, over the short term, medium and long terms;</p>
<p>This report contains specific recommendations to improve road safety for all roadway users over the short term, medium and long terms. Other initiatives from the Traffic Section of public works such as the Red Light Camera program and the Bicycle Route Master Plan implementation also are designed as long term strategies for improved safety and mobility in Hamilton. The City of Hamilton also has other strategies that have road safety components built into them, The Pedestrian Mobility Plan, the Traffic Calming Plan, the Transportation Master Plan, all support roadway safety and mobility in Hamilton.</p>
<p>(v) An implementation plan and funding strategy, as appropriate;</p>
<p>Funding for all the roadway safety projects is financed by revenues realized from the Red Light Camera Program, itself a sustainable roadway safety program. Currently</p>

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there is approximately \$9.5 million dollars accumulated in the reserve. These funds were committed by Council in report PW07116 "That all excess Red Light Camera Program fines revenues not required to build, operate or maintain existing or future Red Light Camera sites be allocated to road safety initiatives, as supported by the Hamilton Strategic Road Safety Program, subject to maintaining a minimum balance of \$100,000 in the Red Light Camera Reserve 112203". This is at no impact to the municipal tax levy.

(vi) A regular reporting mechanism and track progress;

The Hamilton Strategic Road Safety Committee is required to report on the progress and results of the Hamilton Road Safety Program annually through the Public Works Committee.

(vii) Continued consultation with the Hamilton Cycling Committee, Hamilton Wentworth District School Board, Hamilton Wentworth Catholic District School Board and all other educational entities in the city of Hamilton who wish to participate; to include but not be limited to the Hamilton Catholic French District School Board, the Hamilton French District School Board, Mohawk College, McMaster University, and Redeemer College University, Public Health Services, Hamilton Police Services, Cycle Hamilton, the Advisory Committee for Persons with Disabilities, the Agriculture & Rural Affairs Advisory Committee, and the Seniors Advisory Committee; and,

The Hamilton Strategic Road Safety Committee is comprised of membership from Traffic, Transportation, Communications, Hamilton Police Services, and Public Health Services. In addition, consultation has been held with the school boards, local school staff and various Parent Teacher groups, and the Seniors Advisory Committee and the Social Planning and Research Council of Hamilton. Continued consultation with the Hamilton Cycling Committee, Hamilton Wentworth District School Board, Hamilton Wentworth Catholic District School Board and all other educational entities in the city of Hamilton who wish to participate; the Hamilton Catholic French District School Board, the Hamilton French District School Board, Mohawk College, McMaster University, and Redeemer College University, Public Health Services, Hamilton Police Services, Cycle Hamilton, the Advisory Committee for Persons with Disabilities, the Agriculture & Rural Affairs Advisory Committee, and the Seniors Advisory Committee will be arranged in 2016.

In addition, staff from Hamilton Traffic are members of the Road Safety Committee of Ontario (ROSCO) made up of professional Traffic Engineering staff from Hamilton, Waterloo Region, Richmond Hill, North Bay, Mississauga, Durham, Halton, Peel, Kitchener, Oakville, Brampton, Ottawa, London, Milton, Niagara, Toronto, York, Ministry of Transportation (Ontario), Consultant companies. Together these members exchange ideas, programs and best practices to improve road safety on roadways in Ontario. Hamilton is regarded as a leader in roadway safety within this group. Hamilton is also a voting member of the TAC (Transportation Association of Canada) Road Safety Standing Committee.

(viii) The creation of a Road Safety Task Force is to be led by the Public Works Department.

The Hamilton Strategic Road Safety Committee was re-convened on March 18, 2015. The committee is comprised of staff members from Hamilton Police Services, Public Health Services, Traffic Operations & Engineering, Transportation, and Communications as its core membership. In addition, consultation has been held with multiple school boards, and the Seniors Advisory Committee. The goal of the Committee is to provide guidance, oversight and direction to the Hamilton Strategic Road Safety Program and to ensure that additional stakeholder input and consultation is sought for specific program development. The Committee is to ensure that the Program includes Education, Enforcement and Engineering are considered together to reduce collisions and improve safety for all roadway users in Hamilton. The Committee met eight times in 2015.

The Roadway Safety Section of Traffic designs and implements the roadway safety plans such as those described in this report. These plans are discussed with the Hamilton Strategic Road Safety Committee who endorse and support the programs and provide multi departmental oversight over the projects and priorities.

#### Vision Zero, Vision, Mission and Goals

Vision Zero is the 1997 Swedish approach to road safety thinking. It can be summarized in one sentence: No loss of life is acceptable. The Vision Zero approach has proven highly successful and has been adopted by City's such as the City of Edmonton and New York City and a number of other Municipalities in the United States. Vision Zero, is based on the simple fact that people are human and humans make mistakes. The road system needs to keep us moving. But it must also be designed to protect road users at every turn.

The current Council approved Hamilton Strategic Road Safety Program (HSRSP) Vision, Mission and Goals are:

**VISION:** To have the best road safety record in Canada.

**MISSION:** To improve the quality of life of the citizens of Hamilton through a reduction in property damage and injury and death resulting from traffic collisions.

**PRIMARY GOAL:** Reduce fatal and injury collisions (combined), and property damage only collisions each by 10% every three year period.

**SECONDARY GOAL:** The City of Hamilton, Ontario be recognized as having the safest traffic record in Canada.

Staff suggests that the Hamilton Strategic Road Safety Program Vision, Mission and Values are already aligned with the Principals and Values of Vision Zero. To further link the HSRSP to Vision Zero, staff recommended that the Hamilton Strategic Road Safety Program Mission, Vision and Goals be revised to support the Principals and Values of Vision Zero. This will acknowledge the linked values and goals. Staff therefore

recommends revising the HSRSP goals to three distinct goals as outlined below which includes adding the specific new goal related to Vision Zero.

Hamilton Strategic Road Safety Program Goals:

1. Reduce fatal and injury collisions (combined), and property damage only collisions each by 10% every three year period.
2. The City of Hamilton, Ontario be recognized as having the safest traffic record in Canada.
3. That the Hamilton Strategic Road Safety Program supports the Principals and Values of Vision Zero.

***Alternatives for Consideration – See Page 17***

### **FINANCIAL – STAFFING – LEGAL IMPLICATIONS**

Financial: The proposed funding model for all costs associated with the Hamilton Strategic Road Safety Program would be to utilize funds from the Red Light Camera Reserve Fund (112203). Funds from the municipal tax levy will not be required to support these programs.

2016 Budgeted Road Safety funds:

• New Pedestrian Crossover Program	\$100,000
• Public Safety and Education Campaign	\$110,000
• Permanent Construction – Traffic Calming	\$120,000
• School Zone Flasher Upgrade and Replacement	\$120,000
• Collision System Upgrade	\$100,000
• RHVP/LINC Speed Monitoring	\$200,000
• Speed Reduction signing	\$200,000
• School Zone signing	\$60,000
• School Zone Flasher Installation	\$75,000
• Durable Ladder Crosswalks	\$700,000
• Temporary Traffic Calming	\$250,000
• EDR Installation	\$15,000
• Miscellaneous Safety requests	<u>\$150,000</u>
Total (Est.)	\$2,200,000

The Red Light Camera (RLC) Reserve (112203) currently accumulates average annual net revenue of approximately \$2,000,000. With the addition of six new Red Light Camera locations; this revenue is expected to climb to about \$2.5 million annually. At the time of this report the balance in the RLC Reserve was at \$9.5 million. Use of this fund to support safety initiatives would enable a proactive approach to the City of Hamilton's Strategic Road Safety Program.

Staffing: It is recommended that the Senior Project Manager, Traffic Roadway Safety, currently funded for a three year period ending in 2017, be confirmed as a full time

permanent position in the 2018 budget and the position continue to be funded (salary and benefit value \$120,000 per year) from the Red Light Camera Reserve 112203 with no impact on the municipal tax levy.

Legal: There are no Legal Implications from this report

## **HISTORICAL BACKGROUND**

On August 15, 2014 City Council approved report PW14090 Re-establishment of the Hamilton Strategic Road Safety Program (City Wide). Shortly after the re-establishment of the Program, staff reconvened the Hamilton Strategic Road Safety Committee comprised of members of Traffic, Transportation, Communications, Hamilton Police Services, and Public Health Services. In addition, consultation has been held with multiple school boards, and Seniors Advisory Committee. The goal of the Committee is to provide guidance, oversight and direction to the Road Safety Program; to ensure additional stakeholder input and consultation is sought; and to ensure that the Program includes the 3E's (Education, Enforcement and Engineering) together to reduce collisions in Hamilton. The Committee has met eight times to date.

The Hamilton Strategic Road Safety Program (HSRSP) established the following Vision, Mission and Goals.

**VISION:** To have the best road safety record in Canada.

**MISSION:** To improve the quality of life of the citizens of Hamilton through a reduction in property damage and injury and death resulting from traffic collisions.

**PRIMARY GOAL:** Reduce fatal and injury collisions (combined), and property damage only collisions each by 10% every three year period.

**SECONDARY GOAL:** The City of Hamilton, Ontario be recognized as having the safest traffic record in Canada.

In report PW14090 it was reported that specific actions for emphasis areas identified by the HSRSP will be reviewed by staff and the committee and action plans will be established. Areas to be considered under the HSRSP can include:

- New pedestrian crossing program
- School zone safety program
- Speed limit designation review
- Vulnerable road user safety and education program
- Red light camera and intersection safety review
- Detailed collision analysis
- Road safety marketing and education campaign
- Aggressive driving
- Cyclist safety
- Transit/transit riders
- Winter weather
- Impaired driving
- Commercial vehicles

- Work zone safety
- Enhanced speed trailer initiative
- Pavement marking upgrade program
- Heavy truck traffic assessment and program evaluation
- Emergency detour routing administration and freeway management control
- Specialized safety initiatives and review that would further enhance road safety for all users.

The Mission and Vision of the Hamilton Traffic Road Safety Program is to make roadways throughout the City of Hamilton the safest throughout North America and to address safety for ALL road users, including vulnerable road users such as seniors and children and to reinvest Red Light Camera (RLC) revenue into safety initiatives in the Community.

Furthermore, in report PW14090 it was recommended that a Senior Traffic Safety Technologist be hired on a contract basis and funded from the Red Light Camera Reserve (112203) with no impact to the municipal tax levy.

Subsequent to the approval of the report in 2014, the Traffic Section of Public Works began to initiate the projects and items identified in the report. In January 2015 the position of Senior Project Manager, Traffic Safety Engineering was successfully filled on a three year contract basis. The incumbent has been instrumental in successfully initiating and guiding road safety staff and projects to date. In order for the entire scope of the Hamilton Strategic Road Safety Program to continue to be successful, this position is required to provide continuing oversight of the staff and growing project list as described in this report, provide research and to co-ordinate with other municipalities, provincial government, councillors and interest groups, seniors, school boards, and citizens in order to provide responsive Traffic Safety Engineering to meet the needs of the citizens of Hamilton and to meet the Mission, Vision and Goals of the HSRSP and also to ideologies such as Vision Zero.

## **POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS**

N/A

## **RELEVANT CONSULTATION**

The Hamilton Strategic Road Safety Committee is comprised of membership from Traffic, Transportation, Communications, Hamilton Police Services, and Public Health Services. In addition, consultation has been held with the school boards, local school staff and various Parent Teacher groups, and the Seniors Advisory Committee and the Social Planning and Research Council of Hamilton. Continued consultation with the Hamilton Cycling Committee, Hamilton Wentworth District School Board, Hamilton Wentworth Catholic District School Board and all other educational entities in the city of Hamilton who wish to participate; the Hamilton Catholic French District School Board, the Hamilton French District School Board, Mohawk College, McMaster University, and Redeemer College University, Public Health Services, Hamilton Police Services, Cycle Hamilton, the Advisory Committee for Persons with Disabilities, the Agriculture & Rural



Affairs Advisory Committee, and the Seniors Advisory Committee will be arranged in 2016.

### **ANALYSIS AND RATIONALE FOR RECOMMENDATION**

The goal of any road safety program is to improve safety and to reduce the number of collisions that occur on municipal roadways and to reduce the social, economic impacts that occur as a result of motor vehicle collisions and the overall safety of all road users including pedestrians and cyclists.

#### **Collision and Fatality Impacts**

The impacts of collisions and fatalities far exceed the time and costs which are incurred at the time of the incident. Collisions and fatalities impact families, friends and often whole communities in a negative manner.

In 2007, the Transportation Association of Canada published a report on the Analysis and Estimation of the Social Cost of Motor Vehicle Collisions in Ontario. This report outlines that motor vehicle collisions generated \$18 billion in social costs in Ontario. Across all collision severities, the average social cost of a collision in Ontario is approximately \$77,000. The average cost/incident based on severity is as follows:

- Fatality - \$13,600,000
- Major Injury - \$280,000
- Minor Injury - \$48,000
- Minimal Injury - \$18,000

Social Costs include an extensive number of factors including, traffic delays, damage to property, legal fees, funeral costs, insurance costs, pollution costs, out of pocket expenses, hospital/health care; tow trucks, EMS, lost wages, future earnings.

No amount of money could compensate any family who loses a family member or has a family member that is seriously injured in a collision. It is the goal of the Hamilton Strategic Road Safety Program to reduce and eliminate fatal collisions and reduce overall collision numbers to as low as possible.

Approval of this report emphasises the City of Hamilton's commitment to collision reduction providing and improving roadway safety for all road users

### **ALTERNATIVES FOR CONSIDERATION**

Council has made significant investments into improving road safety for all users through the re-establishment of the Hamilton Strategic Road Safety Program, the Committee and through other initiatives such as the Red Light Camera program and the Bicycle Route Master Plan. The Pedestrian Mobility Plan, the Traffic Calming Plan, the Transportation Master Plan. The Hamilton Strategic Road Safety Program is funded from Red Light Camera Reserve 112203". This is at no impact to the municipal tax levy.

The City of Hamilton could choose to modify program, through modifying the funding model to either reduced or increased its investment. Reductions in funding, would lead

to a reduction in the number of safety initiatives implemented an increase in funding could potentially require additional staffing resources to meet program expectations.

A modified funding which model decreased program investment could negatively impact the overall success of the Hamilton Strategic Road Safety Program and slow the progress in implementing various safety enhancements. It could also impact Council's 2012 - 2015 Strategic Plan, Strategic Priority #1 and Strategic Priority #2 by reducing the service to a Prosperous and Healthy Community and reducing the Priority for Valued and Sustainable Services.

## **ALIGNMENT TO THE 2012 – 2015 STRATEGIC PLAN**

### **Strategic Priority #1**

A Prosperous & Healthy Community

*WE enhance our image, economy and well-being by demonstrating that Hamilton is a great place to live, work, play and learn.*

#### **Strategic Objective**

- 1.2 Continue to prioritize capital infrastructure projects to support managed growth and optimize community benefit.
- 1.5 Support the development and implementation of neighbourhood and City wide strategies that will improve the health and well-being of residents.

### **Strategic Priority #2**

Valued & Sustainable Services

*WE deliver high quality services that meet citizen needs and expectations, in a cost effective and responsible manner.*

#### **Strategic Objective**

- 2.2 Improve the City's approach to engaging and informing citizens and stakeholders.
- 2.3 Enhance customer service satisfaction.

## **APPENDICES AND SCHEDULES ATTACHED**

Appendix A – 40 KMH Speed Limits Installed in 2016

Appendix B – School Safety Reviews Completed in 2016

Appendix C – All School Zone Flashers in Hamilton

Appendix D – Ladder Crosswalks 2013 - 2015

Appendix E – All Temporary Speed Humps in Hamilton

Appendix F – 2016 Budgeted Road Safety Initiatives

Appendix G – Motor Vehicle Collision History – 1991 TO 2015