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<b>TO:</b>	<b>CHAIR AND MEMBERS CIVIC WORKS COMMITTEE APRIL 2, 2012</b>
<b>FROM:</b>	<b>JOHN BRAAM, P. Eng. ACTING EXECUTIVE DIRECTOR, PLANNING, ENVIRONMENTAL AND ENGINEERING SERVICES DEPARTMENT</b>
	<b>LONDON ROAD SAFETY STRATEGY</b>

<b>RECOMMENDATION</b>
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That, on the recommendation of the Acting Executive Director, Planning, Environmental and Engineering Services Department, the following actions **BE TAKEN** with respect to the development of a Road Safety Strategy for London:

- (a) The Terms of Reference as set out in Appendix 'A' **BE APPROVED**.
- (b) A budget in the amount of \$200,000, excluding HST, **BE APPROVED**, it being noted that this budget is available within TS4040 – Traffic Studies;

<b>PREVIOUS REPORTS PERTINENT TO THIS MATTER</b>
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June 21, 2010; Road Safety Strategy Development to ETC  
September 26, 2011; London Road Safety Strategy to BNEC

<b>BACKGROUND</b>
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**Purpose:**

This report seeks the approval of a budget and terms of reference for the development of a Road Safety Strategy. With this approval, the Civic Administration can initiate a consultant selection process.

**Context:**

On June 28, 2010, the Municipal Council considered a report from the Director, Roads and Transportation with respect to the preparation of a Road Safety Strategy for London. A comprehensive review of the major causes of road related fatalities, injuries and property damage was recommended as the best way to address a number of outstanding road safety questions of the Municipal Council:

- red light cameras,
- photo radar,
- community safety zones and school area traffic,
- increased traffic units in all neighborhoods
- pedestrian safety
- road/rail level crossing safety,
- traffic calming, and
- posted speed limit policy

On September 26, 2011 the Acting Director, Roads and Transportation recommended that the Built and Natural Environment Committee approve the Terms of Reference and the budget for development of a Road Safety Strategy for London in response to a prior Municipal Council resolution on June 28, 2010. The Civic Administration was directed to report back with additional information to justify the need for London to have a Road Safety Strategy.

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**Discussion:**

Strategic Setting

The City of London Strategic Plan 2011-2014 provides direction applicable to road safety:

*Council identified five results that contribute to the high quality of life in London. Council provides leadership in these areas while working with numerous community partners to achieve results that respect the economic, social, environmental and cultural impacts of our actions. Working with others to achieve these results is the focus for this term of Council:*

- A Strong Economy
- A Vibrant and Diverse Community
- A Green and Growing City
- A Sustainable Infrastructure
- A Caring Community

Strategies in the 2011 – 2014 Plan related to road safety include:

- Invest in strong, safe, modern and efficient infrastructure networks
- Invest in efficient and effective public safety services
- Promote Safety in our Neighbourhoods
- Promote public awareness through prevention programs

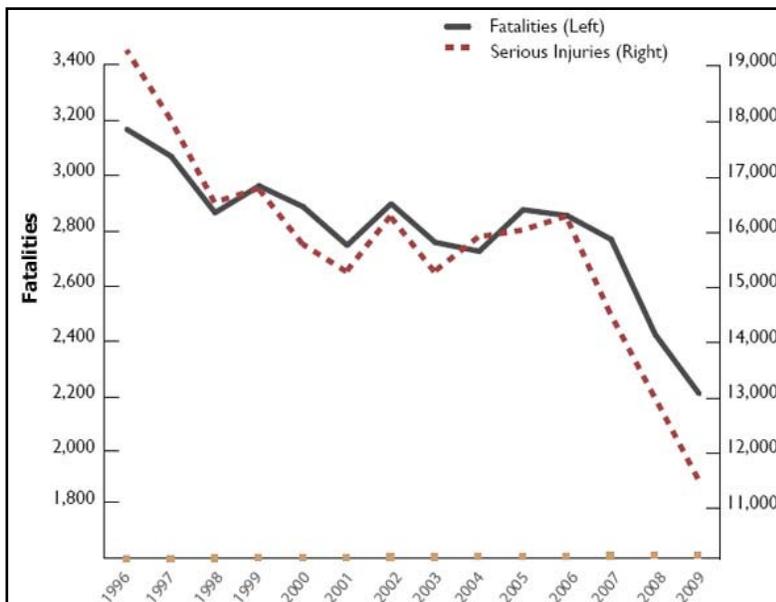
Of particular note in the Strategy is recognition that Council wants to lead community partners to achieve results. Road safety improvement results require Council leadership. This report:

- lays out the road safety problem at both a national and local scale;
- reviews the importance of data analysis to set priorities;
- introduces local partners that are playing a continuing role in road safety;
- shows how London can set targets, policies and action plans to guide the City and its road safety partners in reducing injury and fatalities on our roads;
- identifies other Canadian cities that have successfully developed a road safety strategy; and,
- identifies an available source of funding.

The Problem

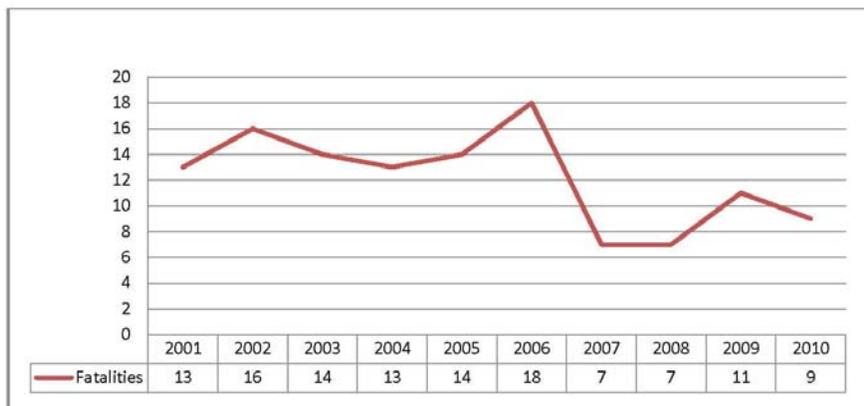
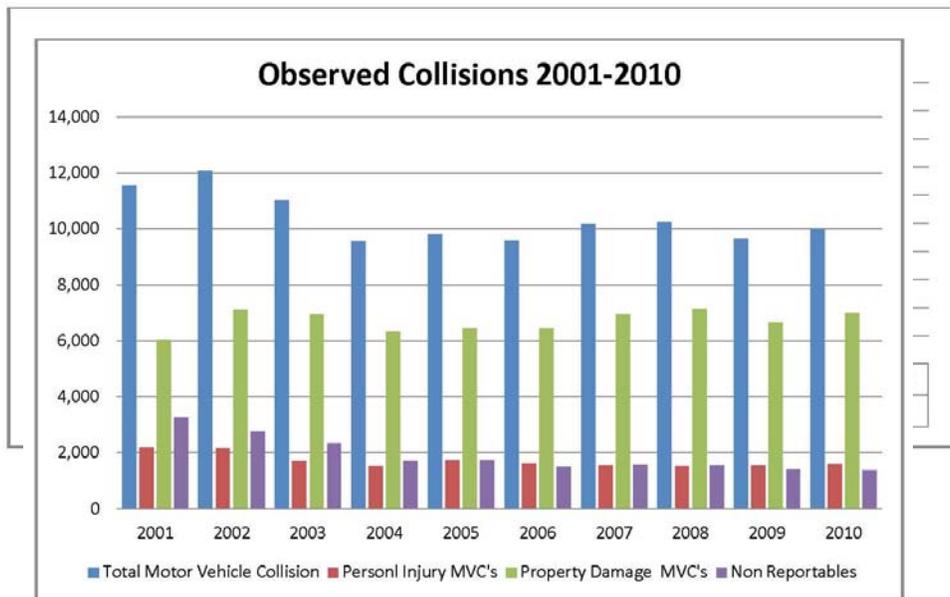
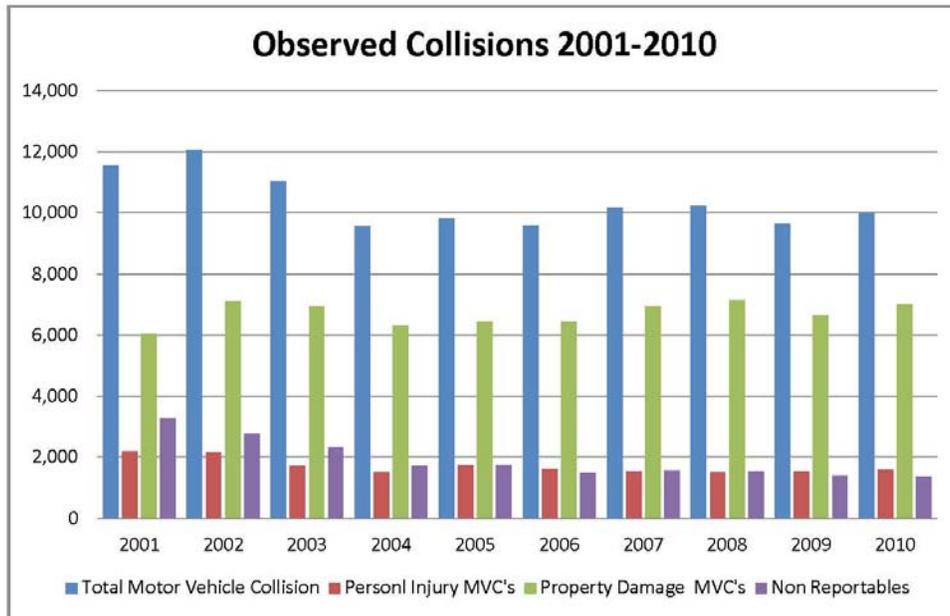
Nationwide, Canada’s Road Safety Strategy-2015 vision is to have the “**safest roads in the world**” by continuing to reduce fatalities and serious injuries caused by collisions on Canada’s roads. In order to achieve this common goal, it is expected that all levels of government as well as key public and private sector stakeholders work together to make Canada’s roads the safest in the world.

The strategies of the Federal and Provincial Governments are to strive for continued reductions in fatality and injury rates related to transportation. This means continuing to “turn the curve”, as shown below, toward 0.

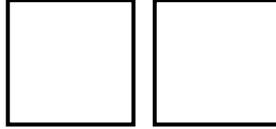


**Fatalities and Serious Injuries  
1996-2009**  
(Source: Canadian Motor Vehicle  
Traffic Collision Statistics 2009)

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**London Collision, Injury and Fatality Records 2001 – 2010**



The same strategy as the Federal and Provincial Governments have adopted -- to strive for continued reductions in fatality and injury rates related to transportation -- can be applied to London, with a goal to turn the collision and fatality curves toward zero.

Although the latest National statistics show a decline in traffic collisions and injuries, road incidents are still the leading cause of unintentional injury deaths in Canada and are preventable. The fact that there is a decline in fatalities and serious injuries provides evidence that Canada's Road Safety Strategy objective to reduce fatalities and serious injuries caused by collisions on Canada's roads is working and municipalities should build on these successes in order to achieve Canada's vision to have the "safest roads in the world".

Similarly, London collision and fatality figures are somewhat lower in recent years than 10 years ago, but they are stubbornly holding to about 10,000 collisions and 7-11 fatalities per year. What do we need?

- data-driven goals, emphasis areas and countermeasures
- to coordinate and leverage resources (partnerships)
- to identify and address funding and delivery gaps

Data

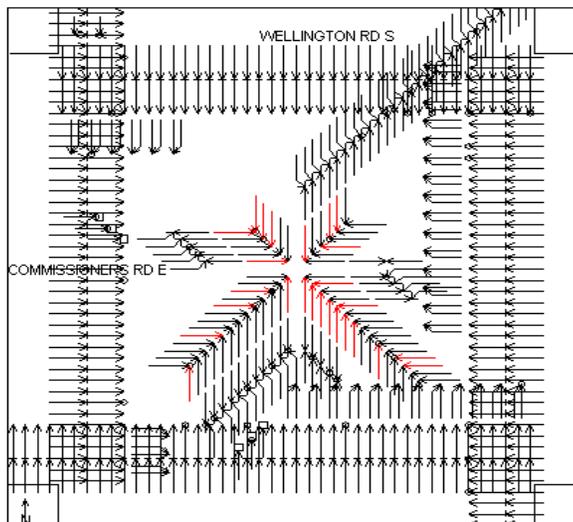
Good information has been assembled by the City and road safety partners. The City has been assembling a strong database of collision details that is now sufficiently long to be meaningful in an analysis. The data includes type of collision, weather and road conditions, and local traffic volume. From 30 to 80 fields of data is available back to January of 2005.



**Pedestrian and Cyclist Collisions in Downtown London**

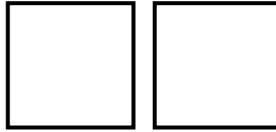
**COMMISSIONERS RD E @ WELLINGTON RD S**  
ID: INT4676  
From: 01-Jan-2005 To: 31-Dec-2010

**Intersection Collision Summary Diagram**

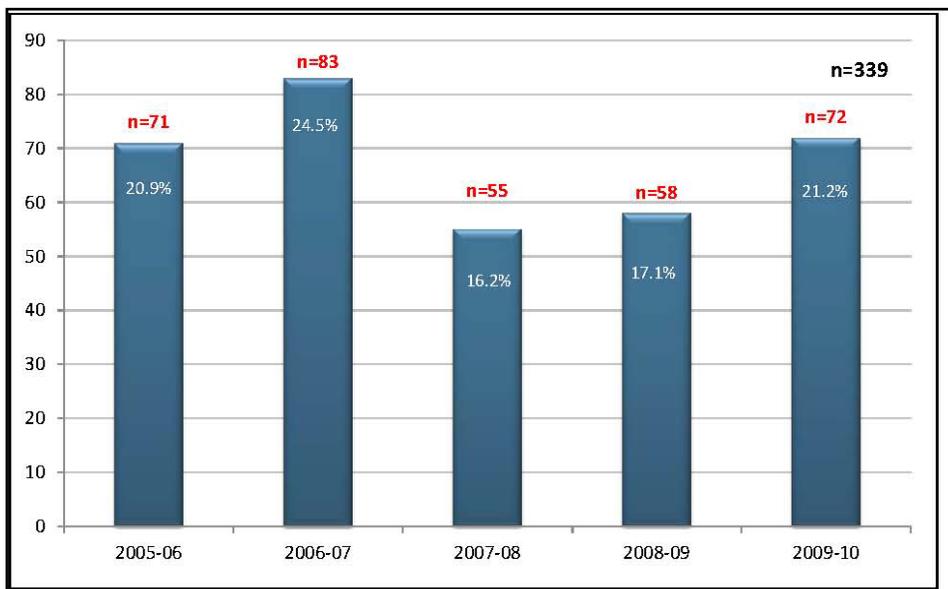


Collisions Summary	
Head On	6
Right Angle	39
Rear End	210
Sideswipe	36
Turning Movement	63
SMV/unattended Vehicle	2
SMV/other	6
Other	0
<b>Total</b>	<b>362</b>

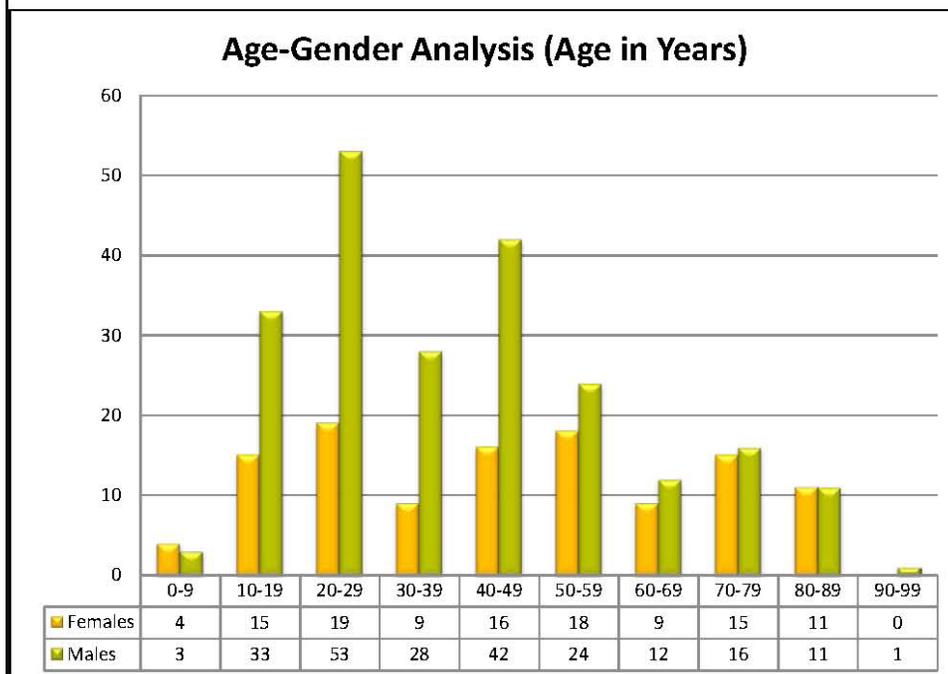
Legend	
→ Head On	→ Other
↔ Right Angle	◊ Injury
← Rear End	• Fatal
↔ Sideswipe	→ At Fault
↔ Turning movement	
↔ SMV/unattended	
↔ SMV/other	



The Trauma Program at the London Health Sciences Centre (LHSC) maintains a detailed database on patients who have sustained severe injuries. Patients injured from a motor vehicle collision, as a driver, passenger, pedestrian, cyclist or other vehicle type, are included in the database. The database contains over 400 data elements on patient demographics, injury and crash details, protective device use, ejection, location of crash, vital sign and treatment data from the scene and hospital, injury descriptions and outcome variables. The following charts illustrate the severe motor vehicle collisions that occurred in London between 2005 and 2010. The data shows a total of 339 patients were severely injured in traffic collisions over the past 5 years. The full report provided by the London Health Sciences Centre (LHSC) is shown in Appendix 'B'.

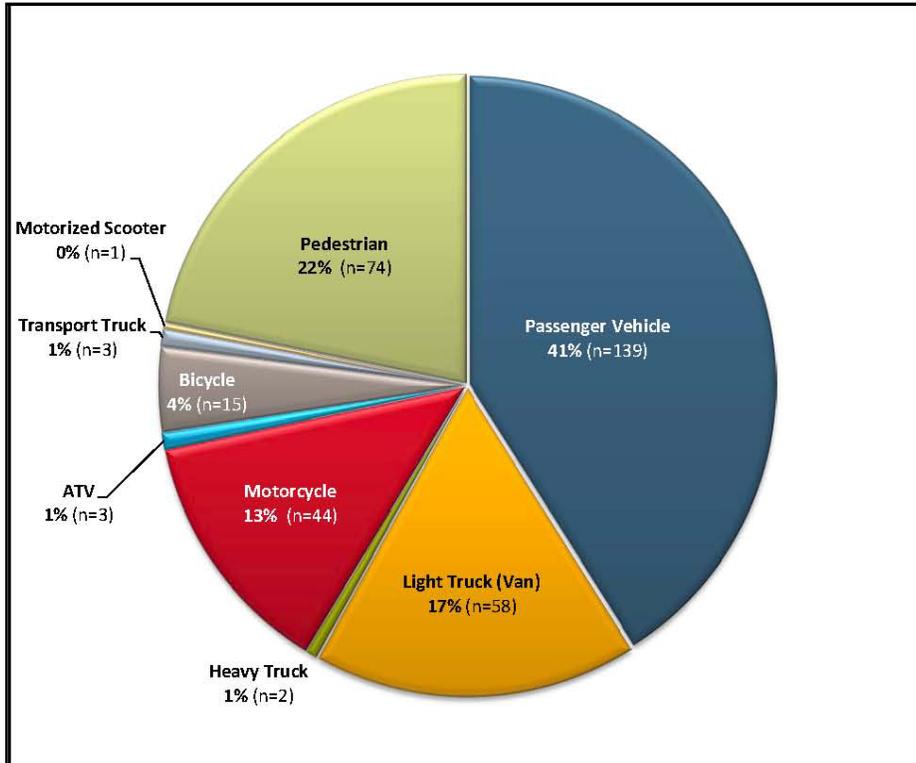


Fiscal year analysis of severe traffic MVC in London

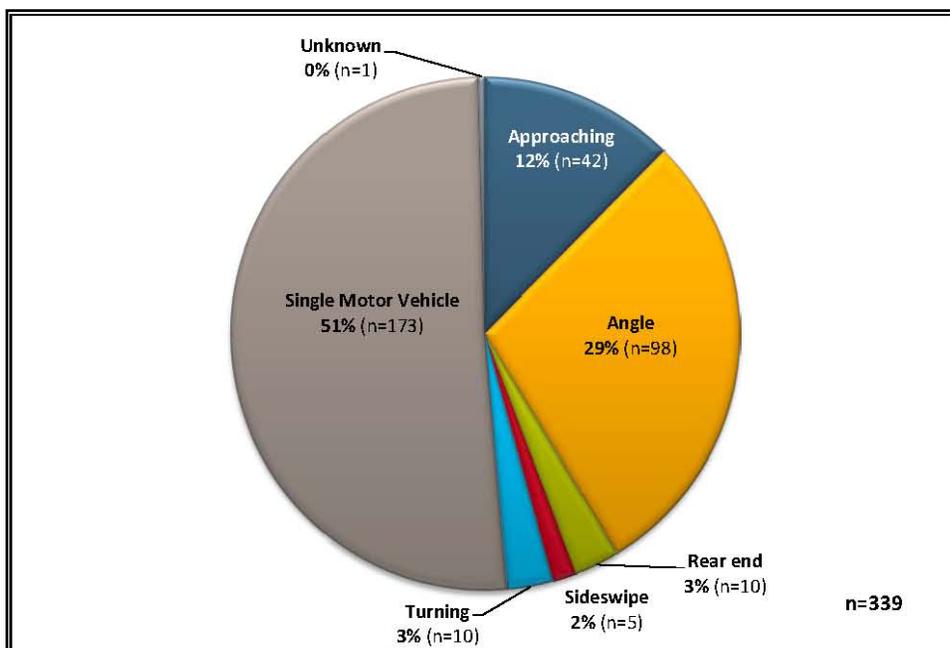


Age-Gender Analysis of the severe traffic MVC in London

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Vehicle type, or pedestrian, involved in the severe traffic crash in London



Impact type of the severe traffic crashes in London

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## The Approach

To effectively understand, diagnose and treat traffic safety problems, the City and its partners should develop and implement a comprehensive Road Safety Strategy based on the attached Terms of Reference (Appendix A). This proactive strategy can yield immediate and longer-term savings in both dollars and lives, and help to manage the significant resources involved.

Improving road safety cannot be done by the City alone. The goal of the proposed London Road Safety Strategy (LRSS) is to provide road safety direction to the Public Works, Police Services, Health, Medical and Education partners. The LRSS should set out the targets, policies and action plans to guide the City of London and its road safety partners in creating safer roads and reducing the number of road fatalities and injuries on the roads and highways of London.

Road safety is a shared and coordinated responsibility; governmental agencies should lead and allocate resources for improving road safety, while at the same time every road user has an obligation to act safely.

## How a Road Safety Strategy is Developed

The gaps in the understanding of local traffic safety factors will be closed by the Road Safety Strategy through the detailed analysis of available data. Quantifiable safety issues – the ones that relate to excessive incidents of injury and public damage – will be identified. The expertise to relate the various databases and to categorize collision factors is with specialized road safety consultants.

In setting priorities, the City and technical parties select emphasis areas, those areas that have been identified as safety concerns for which resources are required to develop and implement action plans forming the road safety strategy. A number of issues can be expected to be in the forefront of the study:

- Access Management
- Speeding (and aggressive driving)
- Impaired Driving
- Intersections
- Use of safety belts
- Driver age/ability
- Weather/road conditions
- Vulnerable road users (e.g., pedestrians, cyclists and personal mobility devices)

The study team will then identify countermeasures and programs with a focus on these issues. The outcomes of a Road Safety Strategy can have measurable results so that the cumulative effect of all measures by all road safety partners can be monitored for efficiency and effectiveness. The study team, with expert advice, will determine the most effective measures that:

- Reduce collisions
- Reduce injury severity
- Inform the public
- Improve Road Safety knowledge
- Improve quality of life

The classic three pronged approach to traffic safety involves the **3Es**: engineering, education and enforcement. One more discipline (emergency services) is added, making it what is now commonly referred to as the **4Es** of road safety. All road safety partners have a role in one or more of the “Es”.

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## Leadership and Partners

It is important to note that support, cooperation and commitment to implement a road safety strategy are required by a number of partners in the enforcement and health fields. The agencies that are responsible for road safety engineering, traffic law enforcement, safety education, and emergency services or injury prevention programs can be represented on a Safety Program Leadership (SPL) coalition.

In order to coordinate, communicate, and integrate the goals and priorities of the action plan, Council should take on the leadership role with the assistance of the different agencies involved in road safety. Leadership is critical to building any system and a key determinant in the success of a road safety strategy.

For the success of the road safety strategy, it should be led by dedicated and responsible safety advocates. They would act as a focal point for safety advocates, improving interagency cooperation and communication, starting new safety initiatives and increasing safety awareness. London has a ready-made leadership team -- the London-Middlesex Road Safety Committee. Members of this group will provide input and commit time to the project as part of the study Steering Committee:

- Middlesex London Health Unit
- London Health Sciences Centre
- Ontario Provincial Police
- London Police Services
- Ministry of Transportation (MTO)
- Young Drivers of Canada
- 3M

These partners include agencies with road safety programs that would benefit from the analyses and recommendations of a Road Safety Strategy. Other cities have developed strategies to better focus and align programs, and London can also use this approach to manage the most prevalent and important road safety issues facing Londoners. London-Middlesex Road Safety Committee members provide different programs with a common objective to decrease traffic related fatalities and injuries in London and Middlesex area. The following is a brief summary of some of the existing programs that could be optimized:

### London Police Service

Thames Valley District School Board Drivers Ed, Drive wise, London Police Service Traffic Management Plan, Spring Seatbelt Campaign, Speedwatch, Meet the Police Officer, Children's Safety Village, IMPACT, Ride and Operation IMPACT.

### 3M

Canada Traffic Safety Systems

### London Health Sciences Centre

Impact, Idrive, Be Safe Be Seen, Helmets on Kids Campaign, and BeCause Campaign

### Middlesex London Health Unit

"Because Injuries are Preventable and Predicable" educational and mass media campaign, Assessment and Surveillance for road and off-road safety, Cycling (helmet safety) / pedestrian safety, Vehicle safety, Child Safety Middlesex London, Safe Kids Week, Helmets on Kids, Risk Watch Training, Health Promotion activities for schools: Community messaging & awareness days, Safe Grad Workshop, Active and Safe Routes to School, All new legislation promotion, Municipal Alcohol Policy, Provincial Seat Belt Campaign, Child Restraints & Car Seat Clinics (Buckle Up Baby), and Workplace Health Promotion

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Ministry of Transportation (MTO)

Road Safety Challenge, Spring Seatbelt Campaign, and Road Safety Community Partnership Program

Ontario Provincial Police

Middlesex Collision Reduction Strategy, New Driver Program, Licensed Driver Program, and Cognifit Personal Coach.

Other parties will become involved as the strategy develops to allow public opinion to focus on the perceived road safety problems and causes:

- School Boards
- User Groups/General Public
- Seniors

While the strategy is to be fact-driven, these perceptions may be important in understanding problems, setting priorities or in documentation/reporting to ensure that the gap between perception and reality is addressed.

Other Cities Have Road Safety Strategies

*Ontario*

- City of Burlington: Has a Road Safety Strategic Plan where police, community groups, safety organizations, and government agencies work together to improve road safety.
- City of Ottawa: First implemented in 2003, the City of Ottawa is currently looking to update their Integrated Road Safety Program for the next 5 years. Their partners are Ottawa Police, Dept. of Public Works, Ottawa Public Health and community partners.
- City of Hamilton: Implemented the Hamilton Strategic Road Safety Action Plan in 2009.

*Alberta*

- City of Edmonton: implemented a Traffic Safety Strategy between 2006 and 2010.
- City of Red Deer: Has a Traffic Safety Action Plan executed from 2007-2010.

*Manitoba*

- City of Winnipeg: Has a strategic plan that involves "Traffic Safety & Enforcement"

Other Cities in Canada such as (Toronto, Calgary, Brampton, Guelph) are working with their partners to develop road safety strategies and/or safety initiatives.

Study Budget

In light of the information presented above on the problem of severe injuries and fatalities related to road collisions in London, and the high social cost associated with road collisions, an initial planning investment is recommended. The \$200,000 budget requested to develop a road safety strategy and implementation plan is less than the cost of one severe motor vehicle injury, which London experiences about 65 times per year. The required funding is available within existing budgets for traffic studies.

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## Conclusions

1. The vision of the City of London Strategic Plan as well as Canada's Road Safety Strategy both include a safe city and safe roads.
2. Motor vehicle collisions are the largest single contributor to social costs in Ontario.
3. London collision figures are about 10,000 annually.
4. London road fatality figures are ranging from 7 – 11 annually.
5. Good data is available to support a safety strategy:
  - a. The Trauma Program at the London Health Sciences Centre (LHSC) maintains a detailed trauma database on patients sustaining severe injuries and treated at the LHSC.
  - b. The City of London maintains a detailed motor vehicle collision records including pedestrians, cyclists, and vehicular related collisions.
6. The strategy will be supported by enforcement and health agencies, and private companies with in kind services, information and technical assistance. The development of a strategy requires municipal leadership.
7. Safety Program Leadership is needed and should be led by dedicated and responsible safety advocates or safety champions. The existing London-Middlesex Road Safety Committee will fill this role.
8. The objectives for the London Road Safety Strategy have been prepared by City staff and safety partners. It will address a number of long standing concerns of the Municipal Council that could not be answered in isolation.
9. Many major cities in Canada have or are working with their partners to develop road safety strategies.
10. A \$200,000 budget to prepare the Road Safety Strategy is recommended. Funding is available within existing budgets for traffic studies.
11. Terms of Reference prepared for prospective consulting teams to respond to are recommended for approval.
12. Subject to approval of the recommendations in this report, staff will pursue the best qualified consulting team for this assignment, develop a detailed work program with the input of the Steering Committee, and make further recommendations on these to Council.

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**Acknowledgements:**

This report was prepared with the assistance of Maged Elmadhoon, Manager, Traffic Engineering and Transportation Planning within the Transportation Planning and Design Division. The City of London gratefully acknowledges Tanya Charyk Stewart, Injury Epidemiologist for the Trauma Program and the team in the London Health Science Centre for their assistance and for providing the attached traffic collision report. This initiative would not be possible without the ongoing support of the London-Middlesex Road Safety Committee.

<b>PREPARED BY:</b>	<b>RECOMMENDED BY:</b>
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<b>REVIEWED &amp; CONCURRED BY:</b>	
<b>JOHN BRAAM, P. ENG. ACTING EXECUTIVE DIRECTOR, PLANNING, ENVIRONMENTAL AND ENGINEERING SERVICES DEPARTMENT</b>	

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**Attach:**

- Appendix 'A' – London Road Safety Strategy (LRSS) - Terms of Reference
- Appendix 'B' – Severe MVC Traffic Collisions-London Health Science Centre

**C.C.**

- J. Braam
- S. Maguire
- Sergeant T. O'Brien
- Tanya Charyk Stewart, London Health Science Centre
- London-Middlesex Road Safety Committee

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**Appendix 'A'**

**London Road Safety Strategy (LRSS) - Terms of Reference**

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**CITY OF LONDON**  
**REQUEST FOR PROPOSALS DOCUMENT**

**CONSULTANT TO PROVIDE A ROAD SAFETY  
STRATEGY PROGRAM**

**Closes:** \_\_\_\_\_

**Transportation Planning & Design  
Roads and Transportation  
300 Dufferin Ave  
P.O. Box 5035  
London, ON  
N6A 4L9**

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**London Road Safety Strategy (LRSS)  
Terms of Reference (Draft)**

**1. INTRODUCTION**

**1.1 Background**

The City of London is situated in the heart of ‘the Great Southwest’ Ontario with a population of over 366,000 people. The London Census Metropolitan Area (CMA) includes London and the communities of St. Thomas, Strathroy, Dorchester, and other smaller centres within Middlesex County.

As initiated by other Municipalities in Ontario and in other Canadian Provinces, London desires a road safety strategy that identifies the most important traffic safety issues in London and sets out the targets, policies and actions to guide the City of London, the London Police, Health and other local partners to create safer roads and reduce the consequences of traffic collisions on London roads.

On average, there are more than 10,000 reportable motor vehicle collisions in London each year. In 2003, there were 8,478 total collisions that resulted in 9 fatalities and 1,269 personal injuries. From a population perspective, these figures are equivalent to 2.6 fatalities and 362.2 injuries per 100,000 population respectively. These collisions also resulted in an estimated more than \$ 36 million total damage costs.

The 2006 Canadian Motor Vehicle Collision Statistics report prepared and collected by Transport Canada in cooperation with the Canadian Council of Motor Transport Administrators showed that in 2006 there were 2,889 fatalities and 199,337 total injuries in Canada. In addition, the report showed that there were 6.2 fatalities and 539.8 injuries per 100,000 population in Ontario compared to 8.9 fatalities and 604.0 injuries per 100,000 population in Canada.

Motor vehicle collisions generated \$18 billion in social costs in Ontario in 2004. Fatalities in those collisions were the largest single contributor to social costs at \$11 billion. Also significant were the costs of injuries, at \$4 billion and property damage at \$2 billion. The average full (including all allocated) social cost was \$13.6 million for a fatality, \$280,000 for a major injury, \$48,000 for a minor injury, and \$18,000 for a minimal injury. (*Source: Transport Canada- Analysis and Estimation of the Social Cost of Motor Vehicle Collisions in Ontario*).

**1.2 Context**

Road safety improvements have been of interest to the City of London Municipal Council and the public for many years. The gaps in understanding local traffic safety should be closed so that effective countermeasures and programs can be identified. The focus should be on quantified safety issues – the ones that relate to excessive incidents of injury and public damage. It should also not lose sight of what makes people feel safe (i.e. safety and security). Generally, and at a strategic level, what are the primary road safety and security issues in London, and what direction should London and its road safety partners consider taking to address them?

On \_\_\_\_\_, City Council directed the preparation of a Road Safety Strategy for London using these Terms of Reference.

**2. STUDY PURPOSE**

A Road Safety Strategy should identify and target the most critical road safety issues in London with efforts and programs from a number of key stakeholders. The Strategy will set out the targets, policies and actions to guide the City of London and its partners to create safer roads and reduce the number of traffic collisions on the roads of London and the surrounding communities. Road safety is a shared and coordinated responsibility; governmental agencies are required to lead and allocate resources for improving road safety, while at the same time every road user has an obligation to act safely.

The classic three pronged approach to traffic engineering involves the **3Es**: engineering, education and enforcement. One more discipline (emergency services) is added making it what

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is now commonly referred to as the **4Es** of road safety. It is important to note that the support, cooperation and commitment to implement a road safety strategy are required by a number of partners in the enforcement and health fields. The agencies that are responsible for road safety engineering, traffic law enforcement, safety education, and emergency services or injury prevention programs can be represented on a Safety Program Leadership (SPL) coalition.

For the most part, the required partners are already organized locally as the “London-Middlesex Road Safety Committee”. Internal interest in a strategy development would include the Community Safety and Crime Prevention Advisory Committee. Private interest could include the insurance industry. Development of a strategy should also involve the public. The following section briefly summarizes what we know about traffic safety in London and elsewhere.

### 3. ROAD SAFETY PROGRAMS

#### a) **Canada ‘s Road Safety Strategy 2015**

The ultimate goal of Road Safety Strategy (RSS) 2015 is to continue to reduce fatalities and serious injuries caused by collisions on Canada’s roads. The core objectives of the Road Safety Strategy 2015 are:

- Raising public awareness and commitment to road safety.
- Improving communication, cooperation and collaboration among all stakeholders,
- Enhancing enforcement.
- Improving road safety information in support of research and evaluation.

The strategy outlines best practices and initiatives that jurisdictions will have the flexibility to adopt depending on their suitability, feasibility and acceptability within their respective operating environments. Each jurisdiction will develop and ‘own’ their respective road safety plans.

#### b) **Ontario – Road Safety Agenda**

Road safety was supported provincially through partnerships with police services and various safety groups with:

- province-wide truck safety blitzes
- seatbelt safety campaigns
- Allowing red light camera technology to enhance enforcement and traffic safety on municipal roads

#### c) **City of London**

Corporate Strategic Plan – The City of London Strategic Plan 2011-2014 provides direction applicable to road safety:

*Council identified five results that contribute to the high quality of life in London. Council provides leadership in these areas while working with numerous community partners to achieve results that respect the economic, social, environmental and cultural impacts of our actions. Working with others to achieve these results is the focus for this term of Council:*

- *A Strong Economy*
- *A Vibrant and Diverse Community*
- *A Green and Growing City*
- *A Sustainable Infrastructure*
- *A Caring Community*

Strategies in the 2011 – 2014 Plan related to road safety include:

- *Invest in strong, safe, modern and efficient infrastructure networks*
- *Invest in efficient and effective public safety services*

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- *Promote Safety in our Neighbourhoods*
- *Promote public awareness through prevention programs*
- 
- Official Plan – Safety is a theme carried through the Plan: “Support the planning and development of bicycle routes and pedestrian paths that provide linkages among open space areas, major activity centres, employment nodes and the public transit system and that enhance the convenience, safety and enjoyment of these modes of travel; Support the provision of safe and effective pedestrian movement within the City for all populations, ages and health groups.”
- Council’s Community Safety and Crime Prevention Advisory Committee (reporting to the Community and Neighborhoods Committee) – The Committee has a mandate to develop, encourage and promote activities and education programs related to safety.
- The Environment and Transportation Committee (ETC), now called “Civic Works Committee”, has dealt with a number of traffic safety issues in recent years, some of which are considered a work in progress: red light cameras, photo radar, community safety zones and school area traffic, road/rail level crossing safety, traffic calming, and posted speed limit policy.
- Roads and Transportation programs and budgets have a strong safety influence:
  - A new collision data analysis program is now ready that can identify chronic road safety problems,
  - Warranted sidewalks, minor roads, rural roads, and optimization programs bring infrastructure up to present standards.
  - A recent rail crossing safety audit has identified various systematic and site specific concerns for action
  - The Transportation Operations Public Service Program (TOPS) provides management, analysis and action on more than 800 traffic concerns per year. TOPS responds to all concerns brought in by the public relating to operational traffic issues including pedestrians, bicycles and accessibility. Through a variety of methods the concern is reviewed to determine if engineering, education or enforcement is required to correct identified safety issues.
  - Public Education and Enforcement Program (PEEP) uses radar boards as an education tool for local drivers
  - Identified Traffic Calming areas are being remedied with arterial optimization, operational improvements and area studies
  - Intersection concerns are followed up on with traffic counts, observations and computer modeling, with resulting actions including new signal timing, traffic control changes (if warranted)
  - Intersection Pedestrian Signal (IPS) program for warranted locations
  - The Bicycle Master Plan includes a safety education component
- London-Middlesex Road Safety Committee - Their mission is to implement, support and evaluate various road and off-road injury prevention initiatives, programs and events. The objective of this Committee is to decrease traffic related fatalities and injuries in London and Middlesex area. Members are from MTO, Middlesex-London Health Unit, City of London and OPP. Each of these has a number of road safety programs and initiatives which are coordinated through the committee. The committee supports a strategy development.

**d) Other Municipalities**

In other jurisdictions, there are programs geared toward specific problems. The hallmarks of the most successful ones are that they incorporate all of the 3 E’s, involve the public and have measurable accomplishments. The most recent example of a Traffic Safety Strategy is the City of Hamilton, which was completed in two phases last year. The results of analysis is unique to

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that community, but is presented below to illustrate the type of issues identified as being the most important to address in a strategy, be it a type of driver, a location or behaviour.

Primary Concerns:

1. Aggressive Driving -- Aggressive driving is defined as operating a motor vehicle in a selfish, pushy, or impatient manner, often unsafely, that directly affects other drivers (Disobeyed traffic control, following too close, improper turn, exceeding speed limit, improper lane change, speed too fast, failed to yield right of way, improper passing ). This was involved in 63% of fatal and injury related collisions.
2. Intersections -- Intersection collisions represent collisions occurring within an intersection area or if it involves vehicles waiting at or proceeding towards the intersection regardless of the distance from the intersection. This was involved in 61% of fatal and injury related collisions.
3. Vulnerable users (pedestrians, cyclists, etc.) -- Because they lack the protective enclosure of a vehicle, pedestrians, bicyclists, and motorcyclists are referred to as vulnerable road users. 90% of vulnerable road user collisions are fatal and injury collisions, which is much higher than the overall fatal and injury percentage for all collisions (52%) in the Hamilton area. This was involved in 24% of fatal and injury related collisions.

Secondary Concerns also addressed with strategies for Older Drivers, Hill Sections, Young Drivers, Curved Sections, Winter Weather, Impaired Driving, Commercial Vehicles, Improper Restraint Usage, Roadway Departure and Work Zones.

**e) Technical Organizations**

*Ontario Traffic Council*

The Ontario Traffic Council (OTC) is formed by a group of municipal officials in an effort to improve traffic management in Ontario, by drawing together the knowledge and expertise of those in the field of Enforcement, Engineering and Education (the 3 Es). As part of their role with respect to road safety, the OTC aims to develop and improve educational programmes relating to the fields of traffic safety, traffic/parking enforcement and traffic/parking operations.

*Transportation Association of Canada (TAC)*

The Transportation Association of Canada (TAC) is a national association with a mission to promote the provision of safe, secure, efficient, effective and environmentally and financially sustainable transportation services in support of Canada's social and economic goals.

*The Canadian Institute of Transportation Engineers (CITE)*

The Canadian Institute of Transportation Engineers (CITE) is an integral part of the [Institute of Transportation Engineers \(ITE\)](#) which consists of more than 13,000 transportation professionals responsible for the safe and efficient movement of people and goods on streets, highways and transit systems. ITE facilitates the application of technology and scientific principles to research, planning, functional design, implementation, operation, policy development and management for any mode of transportation.

Other programs and services on road safety in London and Middlesex are provided in Appendix "A".

**4. STUDY OBJECTIVES**

The goal of the London Road Safety Strategy (LRSS) is to provide direction for road safety projects and programs in London. The LRSS should set out the targets, policies and action plans to guide the City of London and its road safety partners in creating safer roads and reducing the number of road fatalities and injuries on the roads and highways of London.

Generally, the scope of services shall be:

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- To identify the factors and / or deficiencies contributing to a high collision occurrences in London.
- To recommend a set of effective and efficient measures and countermeasures to mitigate the contributing factors and / or deficiencies.
- To conduct technical and economic evaluation of each recommended countermeasure to propose its estimated effectiveness and cost-effectiveness.
- To recommend overall goals and objectives as well as detailed annual action plans for implementing the recommended measures
- To recommend a plan for evaluating the effectiveness of the plan and undertake those evaluations
  
- To provide advice and support to the program Steering Committee
  
- To provide formal documentation and presentations

#### 4.1 Detailed Work Plan

A detailed work plan identifying the activities and deliverables at each stage of the study is required. The work plan shall be presented in a logical and chronological order to ensure that all necessary steps are completed prior to moving to a subsequent stage in the study. The Consultant is expected to develop an innovative and cost-effective work plan while still satisfying the minimum requirements set out below.

The expected components are as follows:

**Background Materials.** Review and determine the applicability to relevance of:  
Federal and Provincial road safety plans and strategies.  
Recent municipal road safety strategies.

**Critically appraise plans/advise best structure.** Take the best points from other Strategic Highway/Road Safety programs to develop an approach that will be the best structure for London adapted to our needs, that will succeed in London. Present the plan to the Steering Committee and agree on an approach document.

**Assess road safety within London.** Undertake an analysis of collisions in London, based on available data, that will lead to the definition of key problem areas. The problem areas may be susceptible to improvement through engineering, education, enforcement, regulatory or other forms of change. Benchmark conditions against similar jurisdictions in Canada/U.S.

#### **Workshop Public Opinion**

Conduct a workshop or public information session designed to allow public opinion to focus on the perceived road safety problems and causes. While this project is absolutely to be fact-driven, these perceptions may be important in understanding problems, setting priorities or in documentation/reporting to ensure that the gap between perception and reality is addressed.

**Assess the current capacity to deliver road safety programs in London.** Review and inventory the current resources for delivering Road Safety programs In London; current and recent past programs delivered; strength and weaknesses.

**Develop measure(s) of success.** Develop the criteria by which success will be measured from such elements such as the total number of collisions; severity; injuries; property damage; permanence of change ,etc. This may be different for the first year or two of the project due to statistical measurement issues.

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**Evaluate current science of Collision Countermeasures.** Through literature review and other data acquisition techniques, determine and catalogue the state of the art in Collision Countermeasures; Engineering, Enforcement, Education and Social. What works?

**Develop priority programs combining the previous three tasks.** Develop priority target areas and delivery models with the highest likelihood of success. Document and publish formally.

**Identify, using results based accountability, the curves to turn in the short-term and medium-term.** Define primary and secondary program delivery leaders.

**Determine service delivery gaps.** For those areas where a stronger source of service delivery would have enabled an alternate, more effective countermeasure, refine the missing resource.

**Recommend an Evaluate Program.** Prepare report.

#### 4.2 Issues of interest

A number of issues are expected to be in the forefront of the study:

a) Access Management

Engineering and planning better and safer roads can not only prevent collisions, but also improve people's chances of escaping serious injury or death when collisions occur. The tool of Access Management provides a framework for access control that will maintain a high level of service for through-traffic, while providing reasonable access to abutting properties. One of the main functions of access management control is to reduce collisions alleviate traffic congestion and protect pedestrians.

b) Speeding (and aggressive driving)

Excessive speed contributes to about 30 percent of fatal collisions, and it increases injury severity in collisions with other causes. Reducing vehicle speeds is one of the most effective ways of reducing road trauma. Police enforcement and lower speed tolerances contribute to reduced average traffic speeds on highways. Road design can also contribute effectively to lower speeds, particularly in urban areas. Lowering speed limits and installing awareness signs with police enforcement in the vicinity of schools could contribute to safe walking and cycling to and from schools.

c) Impaired Driving

The risks of a fatal collision while drinking and driving is high due to fatigue and/or drowsiness. The ability to make a decision while driving a motor vehicle is weakened through the use of chemicals (alcohol, illegal and prescriptive drugs, etc.). Public health and government agencies awareness programs that educate drivers about the dangers of impaired driving will contribute to collision reduction involving impaired driving.

d) Red Light Running

Running a red light can cause severe traffic collisions especially when one vehicle runs into the side of another (i.e., right angle or "T-bone" collision). The property damage attributed to motorists failing to observe traffic signals is high as well. Automated photo enforcement at major intersections is one of the measures that could be used to deal with running red lights. For the success of a Red Light Camera program, it is crucial that the enforcement component be complemented by a strong awareness campaign to educate the public about the serious issue of red light running.

e) Use of safety belts

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Safety belts are highly effective in saving lives and preventing injury. There is a significantly higher chance of fatality in a collision when safety belts are not used. Although there is a relatively high rate of safety belt use, improvements can be made through increased enforcement, supported by public education to persuade those who don't wear them of their advantages and to remind wearers of the need to use them at all times.

f) Safety for vulnerable road of all ages (e.g., pedestrians, cyclists, and personal mobility devices)

Municipalities and Regions strive for their road environments, particularly in urban areas, to be safer for pedestrians and cyclists as well as for motor vehicle users. Vulnerable road users make up 20% of road users killed or seriously injured each year in traffic crashes. Pedestrians comprised the largest group of victims among vulnerable road user casualties, accounting for 61% of fatally injured victims. Motorcycle or moped riders accounted for 28% of fatalities, and cyclists comprised the remaining 11% of fatally injured.

The Ontario Traffic Council (OTC) has recently completed work on Book 15 of the Ontario Traffic Manual (OTM) series. Book 15, Pedestrian Crossing Facilities, will be the primary document used by the Ministry of Transportation and municipalities. OTC is currently working on the development of Book 18 of the Ontario Traffic Manual (OTM) series. Book 18, Bicycle Facilities, will focus on both urban and rural roads and will incorporate recent research, theory, concepts, innovations, new methodologies, design concepts and contain information on legal requirements, standards, best practices, procedures, guidelines and recommendations for bicycle facilities

It is important to reduce vehicle speeds, particularly in built-up areas and educate all road users about the needs of pedestrians and cyclists. Meanwhile, municipalities and other education and health agencies continue to work on different safe routes programs for communities such as the Safe Routes to School program.

The City of London is currently reviewing the possibility of amending sections of the Streets By-Law S-1 which deals with operating a motor vehicle or bicycle along a sidewalk. The main intent of the amendment is to allow children to cycle on sidewalks in order to permit young children to participate in cycling with greater confidence and in a safer environment. The recommendation is still under review after receiving public input.

g) New and better targeted education initiatives.

Education initiatives can be achieved through public service campaigns (e.g., radio, television, posters, internet), distribution of fact sheets and/or brochures as well as articles in newspapers. Also, through integrating road safety education in elementary schools as part of their day-to-day curriculum, laying the foundations for a new attitude to road safety.

The above seven primary objectives and any others found through the course of the study are the basis for actions to be taken to improve road safety in London. These objectives should remain 'live' during the entire strategy, and will be regularly monitored and evaluated to ensure the most effective mix of actions are proposed. As the strategy is implemented, the City of London and its partners may enhance initiatives that prove successful, or introduce promising new ones.

The consultant is not limited to the noted objectives and shall provide a complete and comprehensive work plan; the consultant is encouraged to apply their expertise and experience to meet the intent of these objectives. Other secondary objectives may include, but not be limited to, addressing the needs of older drivers, reducing driving fatigue, improving the skills of road users, young drivers, aggressive driving, winter weather, community safety zones, and trauma management.

## 5. STEERING COMMITTEE

City of London  
Middlesex London Health Unit  
London Health Sciences Centre

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Ontario Provincial Police  
London Police Services  
School Boards  
Ministry of Transportation (MTO)  
Young Drivers of Canada  
3M

**6. CONSULTANT SELECTION**

The City will use a Best Value Based Selection process for the London Road Safety Strategy and rank proposals in accordance with the Consultant Selection Criteria described below. The firms may be a sole company or a consortium consisting of affiliated firms, which will complement the lead firm’s core skills, experience and expertise. The budget for this study is \$200,000 including a 10% contingency.

Staff changes by the successful Consultant during the assignment phase will require written approval from the City, prior to any such change. The qualifications and experience of the proposed staff must be equivalent or better to the staff identified in the proposal. Failure to comply may result in the termination of the assignment.

Your proposal shall disclose any active consulting engagements that they may have previously entered into that could be considered a conflict of interest.

**6.1 Evaluation Criteria and Assessment Weighting**

The following weighing will be used when assessing the Proposals:

Methodology and Understanding of Project Goals and Objectives:	30%
Experience on Directly Relevant Projects:	40%
Qualifications of Staff Assigned to Project:	30%

The clarity and succinctness of the submission will be considered in the scoring.

**6.2 Submission Requirements**

Proponents shall address the following topics and any others found relevant. The Proposal shall be of legible text in the main body, with appendices as necessary. Figures, charts, and graphics may be included in an appendix. Resumes of key individuals shall be provided.

- Details of the project approach that shows an understanding of project success factors.
- Methodology in undertaking the project.
- Key staff and their roles, including sub-consultants (organization chart and/or bios in Appendix). The City requests the consultant to include with their submission an estimate of the level of involvement of each individual who will be working on the project and their availability to work on the project. This information should include the following:
  - A percentage of the total time that each individual will be working on the project;
  - Availability for each individual working on the assignment
  - Identify individuals who will be assigned key roles, the city where they are currently geographically based and their availability to provide services over the duration of the project.
- Experience with directly relevant projects;
  - Project profiles
  - Provide 3 references at the municipal level covering consulting services on similar work.
- Estimate of fees:
  - By major study components
  - Disbursements

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The Proposal shall be bound and printed on 2-sided paper.

Please submit six (6) copies of the proposal by \_\_\_\_\_ to the attention of Maged Elmadhoon, P.Eng, Manager, Traffic Engineering and Transportation Planning, Transportation Planning and Design Division.

### 6.3 Questions

Questions on the Terms of Reference will be received up to \_\_\_\_\_, with answers provided by \_\_\_\_\_. All questions and answers will be shared with each consulting team.

### 6.4 Schedule

A general timeline is provided below:

Terms of Reference distributed	_____
Final day for questions	_____
Answers before	_____
Detailed Proposals to be submitted	_____
Recommendation to CWC	_____
City Council Approval	_____
Project Initiation Meeting	to be included in the Proposal
Further study schedule	to be included in the Proposal

## 7. REFERENCE DOCUMENTS

1. Bicycle Master Plan Implementation Study-2007 (pdf)
2. London 2030 Transportation Master Plan  
[www.london.ca/smartmoves](http://www.london.ca/smartmoves)
3. Official Plan  
[http://www.london.ca/d.aspx?s=/Official\\_Plan/op\\_review.htm](http://www.london.ca/d.aspx?s=/Official_Plan/op_review.htm)
4. 2011 – 2014 Council Strategic Plan  
[http://www.london.ca/d.aspx?s=/City\\_Council/Strategicplan2011\\_2014.htm](http://www.london.ca/d.aspx?s=/City_Council/Strategicplan2011_2014.htm)

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Attachments: Appendix "a": Road safety programs and services  
Appendix 'b' – Severe MVC Traffic Collisions-London Health Science Centre

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Appendix "a"

Road safety programs and services

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Appendix "b"

Severe MVC Traffic Collisions-London Health Science Centre

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**Appendix 'B'**

**Severe MVC Traffic Collisions-London Health Science Centre**