

<b>TO:</b>	<b>CHAIR AND MEMBERS COMMUNITY &amp; PROTECTIVE SERVICES COMMITTEE MEETING ON TUESDAY, JULY 21, 2015</b>
<b>FROM:</b>	<b>JOHN KOBARDA FIRE CHIEF LONDON FIRE DEPARTMENT</b>
<b>SUBJECT</b>	<b>REQUEST FOR PROPOSAL 15-03 DRIVER SIMULATOR</b>

**RECOMMENDATION**

That on the recommendation of the Fire Chief, and the concurrence of the Managing Director, Neighbourhood, Children & Fire Services, that the following action be taken:

1. The negotiated amount with KnowledgeSurge Learning Solutions Inc., operating as Drivewise, for the supply and delivery of a Driver Simulator at their proposed price of \$169,342 HST extra, **BE ACCEPTED**;
2. That the funding for this project **BE APPROVED** as set out in the Source of Financing Report attached hereto as Appendix "A".
3. Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this purchase, and
4. Approval hereby given **BE CONDITIONAL** upon the Corporation preparing a purchase order relating to the subject matter of this approval.

**PREVIOUS REPORTS PERTINENT TO THIS MATTER**

None

**BACKGROUND**

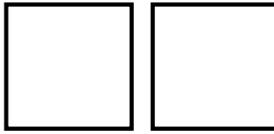
**ALIGNMENT WITH STRATEGIC PLAN**

The proposed purchase of the driver training simulator (herein referred to as the Simulator) is intended to support the objectives detailed in the Strategic Plan for the City of London, as outlined below.

Strengthening our Community

5. Healthy Safe and Accessible City
  - e. Promote and support a safe community through the work of the London Fire Department by: Introduction of new technology.

The Three Lines of Defense, more specifically public education, prevention and emergency response, contribute to a community's fire safety. The third line requires an efficient and effective emergency response for the purposes of quickly and safely transporting the required firefighters, emergency response fire vehicles and equipment to an emergency scene. To achieve this objective, individuals driving such vehicles must be knowledgeable, competent, capable and confident of driving in a wide array of weather and traffic conditions, as well as be prepared to quickly and appropriately react when unpredictable situations arise. Recognizing the importance of a quick but safe response, the incorporation of a Simulator into the Firefighter/Apparatus Operator (FFAO) training program would greatly enhance the existing program for the benefit and safety of citizens and visitors, as well as the responding firefighters.



### Leading in Public Service

#### 5. Excellent Service Delivery

- d. Keep looking for new opportunities to share services and supports between the City of London and its agencies, boards, and commissions.

If approved, the London Fire Department will be the first department/division within the Corporation to possess such a hands-on, educational/technological tool. Because the Department does not require the Simulator year round and the flexibility of the recommended Simulator enables it to be quickly adapted to other types of non-fire vehicles, the LFD would extend driver training opportunities to other municipal divisions and departments. For a fee, the LFD could also offer to rent the Simulator to other boards, commissions and public safety organizations, noting that they would be responsible to purchase their own customized simulations if one did not exist within the library.

### **Purchasing Process**

Following the development of a comprehensive specification, in April 2015 the City issued a Request for Proposal 15-03 (RFP) for the purchase of a Driver Simulator. Advertising through Biddingo, the City received three (3) responses, noting that one (1) proposal significantly exceeded the Department's capital funding and, therefore, a decision was made to evaluate the two (2) proposals that were within the budgeted amount.

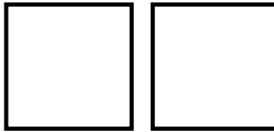
On receiving the proposals, an evaluation team with representation from the London Fire Department (LFD) and Purchasing and Supply undertook a comparative line by line analysis of all responses to establish each bidder's compliance with the specifications. Further to this analysis, the team individually scored the proposals based on pre-established criteria. Based on the analysis and the scored evaluation, the evaluation team's findings show that the response from KnowledgeSurge Learning Solutions Inc., operating as Drivewise, scored the highest, met the Department's needs with respect to functionality and performance and offered best value based on a five (5) year life cycle analysis.

### **Reason for Purchase**

In order to suitably prepare individuals to drive a wide variety of emergency vehicles, at speed, a comprehensive driver training program is imperative. Following the International Academy for Professional Driver's (IAPD) curriculum, the Department currently provides its trainee drivers with sixteen hours of theoretical and practical defensive driving training. Successful completion of this course then enables the individual to progress to the experiential portion of the program, whereby they are required to accumulate fifteen hours of "hands on" driving time with the various types of fleet vehicles driving at posted speed limits, which they do returning from emergency incidents, as well as responding to non-emergent events. While the Department was for many years a leader within the Province in this area, the training is identical to what would be given to a truck driver and, therefore, a number of opportunities arise to improve and enhance the program, as will be discussed below.

The London Fire Department operates multiple types of frontline vehicles, namely, Engines, Pumper Rescues, Quints, Aerial Ladders, an Aerial Platform, a Rescue Unit, Tankers, Command Cars, as well as a Hazardous Materials vehicle and an Air/Light Unit. Each type of vehicle has different handling characteristics, weight distributions, overall weights, lengths, heights, etc. and, in fact, some vehicles within a type vary. One such example would be Engines, as the LFD fleet includes three (3) Engines with one (1) carrying 500 Imp. gallons of water, whereas the second carries 800 Imp. gallons and a third 1,000 Imp. gallons. Each vehicle is incrementally longer and heavier. Similar variances exist within the Pumper Rescue, Quint, and Tanker types of fire vehicles. In order to provide a comprehensive training experience, the Training Division would require, at the very least, to include each of the vehicle types during the training program. Operationally, this is impossible as areas of the City could lose their frontline protection during the training session and, as such, the Department primarily relies upon a dedicated 24 year old E-One fire truck with older technology.

Further to the above, the Department is currently unable to provide trainee drivers with a realistic experience driving at alarm speeds because the current site, the former ASEA Brown Boveri plant parking lot, used for the practical defensive driving component of the program is not large enough. As well, the useful life of the site is questionable because the asphalt is deteriorating due to age and the fact that it was not designed to support heavy trucks. A few larger municipalities have attempted to address such driver training challenges by constructing dedicated driving tracks that provide their trainee drivers the opportunity to practise their driving skills at speed within a controlled environment; nonetheless, at least three (3) challenges arise with this solution, as well as the London solution. First, as discussed earlier, the lack of vehicle availability makes it near



impossible to let every trainee experience each type of vehicle under higher speed conditions. Second, while the training is “hands on”, it still cannot provide realistic training experiences of driving to emergent incidents, or to experience driving in poor weather conditions, or to react to an unforeseen event, such as a tire blow out, a skid or a car pulling out in front of them. Finally, such a track would require at least six (6) acres of land, noting that a previous consultation with Mississauga’s Fire Chief suggests that an investment of several million dollars would be required. In summary, it is to not say that such tracks do not add value to a training program, quite the opposite; nevertheless, as noted, they do have limitations and represent a very significant investment.

One of the key features of a Simulator is that it can be programmed to match the characteristic of each vehicle type, in fact down to the subtype if required. Moreover, through pre-developed scenarios or scenarios customized by the Instructors, trainees and existing FFAOs can also be safely exposed to a myriad of realistic situations so that they can hone their skills. Simulators are used widely within public safety, military and aviation settings and it is acknowledged that they provide users with an opportunity to get acquainted with the realities of their role and to test their reflexes and responses in a measured, consistent and repeatable manner. It is also recognized that structured simulation based driver training has been shown to reduce accident rates.

Because of the inherent flexibility of a Simulator, they need not be limited to fire type vehicle training. The Simulator is programmable and, as such, for an additional fee, it can be programmed to replicate multiple vehicle types, such as snow plows, garbage collection trucks, police cars, ambulances, municipal buses. Over and above the fire apparatus software simulations included for Department use, the recommended proposal includes two (2) municipal vehicle types currently used by the City and, therefore, subject to availability, the Environmental and Engineering Services Department (EESD) could benefit through this purchase with minimal, to no investment. As such, the rental costs currently incurred by EESD could result in savings. Further, there could be opportunities in the future to generate revenue from the rental of the simulator to other external organizations, when not in use by the City of London.

**Financial Impact**

Funding for this expenditure is provided in the Capital Budget for the London Fire Department, as detailed in Appendix A (attached) Source of Financing.

In addition to the capital investment, the Simulator would require approximately \$600 more in operational expenditures in Year 1 and Year 2, increasing to \$9,800 in Year 3 and beyond. These costs herein noted will be absorbed within the LFD Operating Budget.

**SUMMARY**

In summary, acquiring a driver training simulator enables the London Fire Department to enhance its driver training program by introducing realistic, hands-on experiences that will result in more knowledgeable, competent, capable and confident drivers that are better prepared to operate the LFD’s emergency vehicles in a wide array of weather and traffic conditions, as well as be prepared to quickly and appropriately react when unpredictable situations arise. The outcome will be a benefit to citizens and visitors through quick, safe and efficient responses to emergencies, as well as enhance the safety of responding firefighters.

Furthermore, subject to scheduling availability, the flexibility of the recommended Simulator enables the Department to extend training opportunities to other internal divisions and departments to assist with their driver training, as software changes can quickly provide for simulations on multiple vehicle types. It should be noted that the proposal submitted includes two (2) municipal vehicle types over and above the fire apparatus enabling EESD to also benefit from its purchase immediately. While the LFD’s focus is on internal partnerships, revenue generating opportunities exist because the Simulator could be rented to boards, commissions and other public safety organizations.

Following a comprehensive comparative analysis, as well as separate evaluative scoring based on predetermined criteria, the evaluation team identified the response from KnowledgeSurge Learning Solutions Inc., operating as Drivewise, to have scored the highest and, furthermore, met the Department’s needs with respect to functionality, performance and offered best value based on a five (5) year life cycle analysis.

<b>PREPARED BY:</b>	<b>RECOMMENDED BY:</b>
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<b>DAVID LAZENBY DEPUTY FIRE CHIEF</b>	<b>JOHN KOBARDA FIRE CHIEF</b>
<b>REVIEWED AND CONCURRED BY:</b>	<b>REVIEWED &amp; CONCURRED BY:</b>
<b>LYNNE LIVINGSTONE MANAGING DIRECTOR, NEIGHBOURHOOD, CHILDREN &amp; FIRE SERVICES</b>	<b>ANNA LISA BARBON DIRECTOR, FINANCIAL SERVICES</b>