London Development Institute

May 26, 2016 By Email

City of London
300 Dufferin Avenue
London, Ontario
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Attn.: Chair and Members of the Strategic Priorities and Policy Committee

Re: SHIFT Rapid Transit (RT) Business Case May 5, 2016

Chair and Members of the Committee

The LDI supports the May 5, 2016 Staff recommendation to accept the business case proposing Bus Rapid Transit (BRT) as the preferred alternative for Rapid Transit in the City of London.

Members of the industry have watched, read and participated with great interest in the vigorous discussion regarding London's transit future and the London Plan. We believe strongly an efficient and robust transportation system for the City of London is one key to London's prosperity and is strongly linked to how our city will develop in years to come.

London's Tech Leaders have publicly stated that London needs to attract and retain highly skilled, creative thinking young talent and we could not agree more with this sentiment but it has to be the right solution for London. London's time for rapid transit has come and we believe that Bus Rapid Transit can provide all of the benefits of light rail at a fraction of the cost. In many cities across the world, BRT is being implemented using busses that are electrically powered, passenger friendly and as aesthetically pleasing as any light rail car. BRT has advanced to the point that it must be thought of as the cutting edge form of RT. It can easily adapt to future technological advances, like an autonomous public transportation system that could simply utilize the corridor created by the BRT system. This is something that the leaders of our tech sector should applaud as aspirational future thinking.

We need to ensure that the planning (financial and development), engineering, and implementation of whatever form rapid transit takes is done with proper care and due diligence. London is currently in the midst of an Environmental Assessment (EA) which is a public engagement, planning, engineering and budgeting exercise that has resulted in a business case recommending a preferred alternative,

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meaning that the mode of RT (bus or rail or a combination thereof) has been determined and the final routing is yet to be determined.

On November 9, 2015, a preliminary staff report was tabled at the Strategic Priorities and Policy Committee (SPPC) as a first step in the RT EA process. To summarize the report, it concluded that the "preliminary preferred alternative" was to be a Hybrid RT network comprised of LRT along the Masonville/University/Downtown/Fanshawe College corridor, and a BRT system for Oxford St.West/Downtown/White Oaks Mall corridor. This conclusion was based on a very preliminary review of capital costs, capacity/mobility issues, operating costs, ease of implementation, lifecycle renewal costs etc.

In the November report the "Full BRT" scored similarly to the LRT and Hybrid systems on many factors like operating cost, capacity and mobility but BRT scored higher because of lower capital cost, ease of implementation and operational viability on these very objective criteria. The LRT and Hybrid models scored higher on community, economic development and city building which are more subjective criteria in nature in that they cannot be easily quantified with any real certainty. The LDI position is that mode of RT has little affect on city building and intensification. Land use policies and political will have the greatest affect on city building.

Moving forward to May 5, 2016, the SPPC received a staff report presenting the business case for a full BRT network as the preferred alternative after a more detailed cost-benefit analysis and progression of the EA process. It was determined by staff and the consultant, IBI, that BRT is the preferred alternative for RT in London. To summarize the business case the benefit to cost ratios were calculated, and the full BRT system scored higher than any other alternative evaluated. In general, the BRT was shown to perform equally to a hybrid or full LRT system, but at a significantly reduced capital cost. The total "benefits" calculation shows that BRT provides 98% of the benefits of the hybrid system for 57% ($500m vs $880m) of the cost and provides 97% of the benefits of a full LRT system for less than 50% ($500m vs $1.2b) of the cost of a full LRT system.

The May report also factored in subjective analysis like the potential impact on city image, urban regeneration effects and catalyst for transit oriented development (TOD) for both LRT and BRT.

In the business case the BRT is cited to allow for more frequent service, can be better integrated with "regular" bus routes, is more flexible in meeting peak and off peak ridership demands and can also be extended more easily to provide service to areas like the airport. BRT appears to be better able to expand into new areas in the future with little capital costs, as well as be flexible to optimize levels of service as required.

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Optimization of service levels at all times is an important key in gaining new ridership. The frequency at which a BRT system operates in off peak hours is higher than LRT – in other words, a bus would arrive every 15 minutes in off-peak hours, whereas a rail car would only arrive every 30 minutes. Gaining new ridership and shifting the modal split towards public transit must be a paramount consideration of any RT system and frequency of service is a major factor in the selection of a method of travel.

The report also notes that a key consideration of BRT implementation would be to utilize next generation bus technology in the form of all electric busses. It needs to be recognized that the business case uses the standard diesel bus for evaluation purposes (like modeling trip times), but the budget of $500,000,000 includes a $135m contingency which Council can use for the purchase of state of the art electric busses. BRT appears to be the most flexible form of RT to best accommodate new technological advances – be they bus or light rail. The report clearly sees the future conversion to LRT as a real possibility. The BRT system can lay the foundation for conversion to new forms of RT technologies, and as such truly has the ability to be transformational for the city of London.

A major aspect of cost for RT is the life cycle renewal expense for transit vehicles and infrastructure. Busses typically last 12.5 years, while rail cars last 25 years, however, the cost of a high end all electric bus is one quarter the cost of a rail car, so the bus replacement costs are only half that of a rail car over a 25-year period. BRT allows for the incremental increase in the requirement for new buses based on the increase in ridership. Additional busses can be added as routes expand and ridership increases.

Replacement costs of the rail bed and overhead electrical power system for LRT are not experienced in a bus-based system. A reserve fund is required to be created with any public infrastructure project to ultimately pay for replacement costs of the infrastructure when renewal is required to maintain a sustainable RT system. The life cycle renewal investment cost for BRT is currently estimated at $3.9m/year, and $9.5m/year for LRT. BRT life cycle renewal costs are only 41% that of a rail based system. Proponents of LRT trumpet the fact that the yearly operating costs of LRT are over $1m/year less than BRT, however, this is clearly negated many times over by the life cycle renewal cost difference of $5.6m/year. Life cycle renewal costs are covered by London tax-payers, not higher levels of government.

In the wide variety of public discussions and forums regarding the transit issue, there are supporters of full BRT, the Hybrid Model and Full LRT systems. Many people have provided thought provoking and passionate pleas for their own preferred alternative. LRT supporters cite that London must build LRT to enhance its image on the world stage and

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attract/retain young people, attract new higher density development along the corridors and provide users with a world-class transit experience.

The question we must ask ourselves is "Can BRT help facilitate all of these things too?" The business case establishes that the answer to this question is also "yes". Numerous case studies comparing different types of rapid transit systems from around the world confirm the value of RT in any form as being a benefit to a city. The most important factor that emerges from all of the reports is that the form of RT system (BRT or LRT) has a very limited transformational influence on a city and the economic uplift of properties along the corridors.

It is Official Plan (OP) policies, the pre-zoning of lands along the RT corridors and the political willingness to facilitate incentives that make the largest impacts on "city-building'. It is the policy framework and political will that must truly be aspirational when it comes to city-building. The larger issue of city building should be addressed in the London Plan.

People need to stop thinking that BRT is somehow inferior, not world-class, not forward thinking, or lacking in any measurable way to LRT. In fact, when one reads RT reports, it becomes clear that BRT can play a part in the transformational change that everyone is looking for because it provides flexibility in accommodating ridership demands with an option for adopting new transit technologies to best serve our city into the future. BRT is a fraction of the cost of light rail which lacks the ability to adapt quickly to ridership needs and to be able to embrace new technologies. LRT is becoming a technological dinosaur that you are married to for 60+ years.

Many Londoners dismiss BRT by saying we are not aspirational enough in selecting BRT as the RT solution for London. Many cities across the world see BRT as more forward thinking and adaptable to change in the future. BRT does not dismiss LRT in the future when ridership may increase but it provides the flexibility to adapt to emerging transit technologies.

One concern that the LDI wants to raise is that there should be no net loss of existing traffic capacity along the RT corridors as determined by the city due to RT infrastructure. Much of the existing capacity was built with Development Charge monies to accommodate growth and an 8% model shift proposed for RT will not decrease capacity demand in a growing city.

The LDI submitted a letter in support of the City's request for provincial funding for RT in the past but we will not be able to send letters of support to the higher levels of Government for a LRT system based on the findings of the RT Business Case proposing BRT presented to SPPC on May 3, 2016.

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Sincerely,
London Development Institute

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President, LDI

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cc Art Zuidema, CAO
cc John Fleming, City Planner
cc Martin Hayward, CFO
cc Edward Soldo, Transportation Manager
cc John Braam, City Engineer

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