Regional Municipality of Waterloo
Planning and Works Committee
Minutes

Tuesday, March 4, 2014
1:38 p.m.
Regional Council Chambers
150 Frederick Street, Kitchener


Declarations of Pecuniary Interest Under the Municipal Conflict of Interest Act

R. Deutschmann declared a pecuniary interest with respect to Report E-14-032/F-14-019, Stage 1 Light Rail Transit Project: Selection of a Design-Build-Finance-Operate-Maintain Consortium, due to an indirect pecuniary interest since he and his spouse are shareholders of corporations that have an interest in a property at 10 Duke Street West, Kitchener.

Request To Remove Items From Consent Agenda

No Items were removed from the Consent Agenda.

Motion To Approve Items Or Receive For Information

Moved by G. Lorentz
Seconded by C. Millar

That the following items be approved:

- That the Regional Municipality of Waterloo approve an amendment to Controlled Access By-law #58-87 for two accesses on the north side of Regional Road #50 (Northfield Drive), one at Parkside Drive, and the other approximately 145 metres west of Parkside Drive in the City of Waterloo, as described in Report No. P-14-029, dated March 4, 2014.

And that the following items be received for information:

- P-14-025, West Waterloo Commercial Centre
- Bridge Street Reconstruction (University Avenue to Woolwich Street) City of Waterloo/City of Kitchener – Information Package in Advance of Public Consultation Centre
- Ayr Sewage Pumping Station, Trunk Sewer, and Forcemain Routing Municipal Class Environmental Assessment – Information Package in Advance of Public Consultation Centre
- Conestogo Plains Water Supply System Class Environmental Assessment Study – Information Package in Advance of Public Consultation Centre

Carried

Regular Agenda Resumes

Reports – Planning, Housing and Community Services

a) P-14-026, North Waterloo Scoped Sub-Watershed Study

A Committee member inquired about Mr. Head the owner of property at 640 Conservation Drive stating Mr. Head attended the Grand River Conservation Authority meeting asking for his property to be removed from the study. Committee wondered if the staff’s recommendation needs to be amended to reflect this change.

Rob Horne, Commissioner, Planning, Housing and Community Services noted that Mr. Head is in support of staff’s recommendation.

Moved by R. Kelterborn

Seconded by T. Cowan

THAT the Regional Municipality of Waterloo take the following actions with respect to the North Waterloo Scoped Sub-watershed Study as described in Report P-14-026, dated March 4, 2014:

a) Approve the North Waterloo Scoped Sub-watershed Study (prepared by Ecoplans Ltd., MHBC Planning, and Stantec Consulting, dated November, 2013) pursuant to Regional Official Policies Plan Policy 3.1.5 and Regional Official Plan policy 7.F.6 to the extent that it addresses matters of Regional interest, and more specifically that Regional staff collaborate with City of Waterloo and Grand River Conservation

1587322
Authority staff to incorporate policies in the City’s planning documents for the affected area to implement an environmental management framework pursuant to the applicable Source Water Protection policies in the Regional Official Policies Plan, Regional Official Plan, and the proposed Grand River Source Protection Plan that would, among other matters:

i) require Hydrogeologic Assessments for future development applications to ensure the quantity, quality, and distribution of groundwater recharge is maintained through the design of stormwater management facilities and buried infrastructure;

ii) require Salt Impact Assessments that include consideration of the design of storm water management facilities to reduce need for winter de-icing practices for plans of subdivision, new employment and multiple-unit residential land uses;

iii) require Salt Management Plans that mitigate the risks of winter de-icing for all new employment and multi-unit residential land uses with large parking lots; and,

v) Implement a Monitoring Program to assess changes to the quantity and quality of surface water and groundwater as a result of development and to verify that the pre-development water balance is being maintained as the area is developed.

b) Address the following in a future amendment to Map 4 (Greenlands Network) of the Regional Official Plan:

i) include the additional Core Environmental Feature areas identified in Attachment 1; and

ii) whether all or part of the natural features on the rear portion of 640 Conservation Drive warrant retention as part of the Greenlands Network shown on Map 4;

c) Continue to work with City of Waterloo staff to include linkages and Supporting Environmental Features identified in the sub-watershed study in the City’s planning documents.

d) Continue to collaborate with staff of the City of Waterloo and Grand River Conservation Authority to implement recommendations for the protection, stewardship, enhancement, and monitoring of the Greenlands Network within the study area.

Carried

Reports – Transportation and Environmental Services

Transportation

1587322
b) E-14-031, Fischer-Hallman Road South Culvert at Strasburg Creek – City of Kitchener

Moved by J. Brewer
Seconded by C. Millar

That the Regional Municipality of Waterloo approve the construction of combined pedestrian and creek culverts as the replacement for the existing Fischer-Hallman Road culvert at Strasburg Creek in the City of Kitchener, as per Alternative 3 noted in the City of Kitchener Strasburg Creek Flood Environmental Study Report dated December 2013, subject to the City of Kitchener’s Class EA Environmental Study Report clearing the statutory minimum 30-day public review period.

Carried

**Water Services**


Moved by L. Armstrong
Seconded by T. Galloway

That the Regional Municipality of Waterloo receive the 2013 Summary Report, as required by Ontario Regulation 170/03, the minutes from the annual Management Review of the Drinking Water Quality Management System and maintenance plan update.

Carried

**Information/Correspondence**

a) Correspondence from Neil E. Taylor regarding Report E-14-029, River Road Extension, King Street to Manitou Drive, Kitchener, Class Environmental Assessment – Recommended Design Concept

Received for information.

b) Council Enquiries and Requests for Information Tracking List

Received for information.

**Delegations**

a) E-14-029, River Road Extension, King Street to Manitou Drive, Kitchener, Class Environmental Assessment – Recommended Design Concept
Steve van De Keere, Acting Director, Design and Construction provided a presentation that highlighted:

- Project Study Area;
- What Are the Problems;
- Preferred Planning Solution Alternative 4C;
- Key Concerns Raised by the Public;
- Concerns Raised about the Natural Environment;
- Concerns Raised about Other Endangered Species or Species at Risk (SAR);
- Suggestions from Neil Taylor;
- What are the Benefits of the Recommended Design Concept;
- Next Steps in the Study.

A copy of the presentation is appended to the original minutes.

i. Louisette Lanteigne appeared before Committee stating the preferred design concept shows dramatic improvement since the first draft plan. She thanked staff for the improvement but still feels more improvements need to be made. She suggested that Hidden Valley Road should be a dead end and the multi-use path on the one side should be removed. She pointed out the River Road extension is to reduce congestion on Fairway Road which is putting the problem onto another road and suggested using the money to purchase more buses. She highlighted the species at risk and the importance of maintaining the habitat for those species.

ii. Duncan Clemens appeared before Committee suggesting the removal of the northern multi-use path between Stonegate Drive and onramp and asked Committee to consider building a retaining wall on the south side. A copy of the presentation is appended to the original minutes.

Committee members thanked J. Wideman J. Haalboom and C. Millar as well as staff from the Region, City and residents for their work on this project.

Committee members asked that the suggestions made by the delegations be considered when working on the next phase of the project.

Moved by C. Zehr
Seconded by T. Galloway

That the Regional Municipality of Waterloo take the following actions with respect to the Class Environmental Assessment for the River Road Extension, King Street to Manitou Drive, in the City of Kitchener:

a) Approve the preliminary design for construction of the River Road Extension as described in Report E-14-029, dated March 4, 2014;
b) Direct staff to file the Notice of Completion for this Class Environmental Assessment Study by means of advertisements in the local newspapers and
mailings to adjacent property owners, tenants, and agencies, and place the Environmental Study Report on the public record for a period of 30 days.

Carried

Committee took a recess at 2:30 p.m. and reconvened at 3:00 p.m.

Rapid Transit

E-14-032/F-14-019, Stage 1 Light Rail Transit Project: Selection of a Design-Build-Finance-Operate-Maintain Consortium

Mike Murray, Chief Administration Officer provided opening remarks highlighting this marks a very significant milestone. He thanked key regional staff; Darshprett Bhatti, Director, Rapid Transit, Kimberly Moser, Manager, Rapid Transit Community Relations, Bryan Stortz, Director, Corporate Communications, Craig Dyer, Chief Financial Officer, Calvin Barrett, Director, Financial Services/Development Financing, Lisa Buitenhuis, Acting Director, Procurement and Supply Services, Debra Arnold, Regional Solicitor and Thomas Schmidt, Commissioner, Transportation and Environmental Services.

M. Murray stated that this has been a lengthy and intensive process and that the Region has been studying and planning rapid transit for over 10 years. He noted that this has been the most extension procurement process and staff is recommending a team with world class expertise that bring local knowledge and presence. He noted that they are pleased with technical and financial elements of GrandLinq’s proposal. He highlighted that the GrandLinq’s proposal aligns with the Region’s approved funding strategy and the project remains on time and on budget.

Thomas Schmidt, Commissioner, Transportation and Environmental Services introduced David Pratt from Infrastructure Ontario, Louise Panneton from P1 Consulting, and Remo Bucci from Deloitte.

T. Schmidt, L. Panneton and C. Dyer provided a presentation highlighting:

- Background;
- Evaluation Process;
- Role of Fairness Monitor;
- Final Evaluation;
- GrandLinq – World Class Expertise;
- Proposal Highlights;
- Capital Costs;
- Operations and Maintenance Costs;
- Protecting the Region; and
- Next Steps

A copy of the presentation is appended to the original minutes.
Delegations

i. Kevin Thomason appeared before Committee highlighting the length of time it has taken for staff and Regional Council to reach this milestone. He congratulated staff and Regional Council for their hard work to get to this point noting the ION provides value and will help change our future growth. He provided a presentation and a copy of the presentation is appended to the original minutes.

ii. John Jackson, Chair, Grand River Environmental Network appeared before Committee stating they have been long time supporters of this project because it is essential for the future of the Region. He noted their involvement throughout all the planning exercises that the Region has had which included the growth management strategy and the revisions to the Region’s Official Plan stating those goals would not be achieved if the LRT did not happen. He did request that concrete commitments be made to Cambridge for the LRT system pointing out the system itself will attract people. He thanked Council for their vision and planning process and urged them to take the next step.

iii. Eleanor Grant appeared before Committee stating she is a resident of uptown Waterloo and highlighted that there is no doubt that the Region is ready for LRT. She highlighted two concerns, low income residents and Cambridge residents receiving the LRT. She asked that the Region monitor the affect the LRT may have on developers raising costs for housing along the core.

iv. Chris Klein appeared before Committee stating he is a resident of Kitchener and first spoke in June 2011. He provided a presentation that compared the Region of Waterloo to Mississauga. He pointed out that LRT is a piece of the puzzle and thanked Council and urged all to support the project. A copy of the presentation is appended to the original minutes.

v. Deb Swidrovich appeared before Committee thanking Regional Council for their foresight and asked not to take this to a referendum. She indicated that Council is educated to make this decision. She explained the hard work that was involved in protecting the Laurel Creek ESL and the pressures being felt of urban sprawl. She highlighted that the LRT is required in order to maintain those protected areas.

vi. Louisette Lanteigne appeared before Committee noting she is a resident of Waterloo and feels that LRT is a fantastic project. She provided suggestions to help promote and offset some costs; provide heated bus shelters, implement an award points and amortizing bus passes into people’s mortgages. She referred to a list she created with her suggestions stating she would leave them with staff.
vii. **Mike Boos** appeared before Committee highlighting that in 2011 the option to not proceed with LRT and to do nothing would cost more due to more roads being built and widened. He explained that it would cost his family $25.00 more in taxes for this option but the phased in light rail approach that was adopted was estimated to cost $22.00. He highlighted that the true cost is only $11.00 a year in increased taxes. He asked that Committee move forward and approve this bid.

viii. James Bow appeared before Committee introducing himself as freelance writer, a homeowner, tax payer, car owner and a father. He thanked Council for doing things well. He pointed out the only complaints he hears is what is taking so long to implement the LRT. He asked Committee to move forward with getting the LRT to Cambridge by implementing concrete dates.

ix. Dave MacDonald appeared before Committee against the LRT project stating the Region’s transit system needs major improvements but LRT is not the right improvement noting rapid bus transit is sufficient enough. He provided statistics from other cities. He asked that Council give voters a choice and to hold a referendum. A copy of his presentation is appended to the original minutes.

x. Greg Durocher, President/CEO, Cambridge Chamber of Commerce appeared before Committee stating the report was very extensive and well done but that 30 years is a long time to be tied into a payment plan. He talked about a survey the Chamber initiated stating 81% of the people who participated in the survey said yes to having a question on the ballot. He asked that Cambridge be area rated and only pay once they receive the LRT.

xi. **Michael Druker**, TriTAG appeared before Committee noting they had concerns about public private partnership but that the Region has done its homework and are happy with the bid. He asked that Cambridge LRT begin immediately after the first phase is done and approve the contract to keep on time and on budget. M. Druker showed a video created by Mike Boos from TriTAG regarding the ION.

xii. Robert Milligan appeared before Committee noting that innovative precedents were overlooked. He suggested that replace LRT overhead power wire with new Bombardier propulsion system, add LRT commuter corridor and improve LRT intensification corridors. He provided details on each suggestion. A copy of his presentation is appended to the original minutes.

Chair J. Wideman made a call for additional delegations.
xi. Neal Moogk-Soulis appeared before Committee stating that the Townships are apart of the Region and should be paying for LRT. He noted the Townships benefit from the project because it helps protect the Townships from urban sprawl.

S. Strickland introduced and read the recommendation from report E-14-032/F-14-019, Stage 1 Light Rail Transit Project: Selection of a Design-Build-Finance-Operate-Maintain Consortium.

S. Strickland highlighted that this project has been in planning for 10 years and has been done in full transparency. He explained this is the right move and the right time. He provided examples and the history of past projects. He pointed out it is their responsibility to lead and plan for the future and this decision will be making one of the largest steps in the history and encouraged his fellow councillors to vote for this.

J. Mitchell highlighted that she will be voting for this and that she is pleased with the consortium and thanked staff for their hard work. She also thanked the delegation Eleanor Grant for raising concerns about affordable housing along the core.

J. Brewer noted her support for the project but identified her struggles because of Cambridge concerns. She provided background on the history of the transit system in Cambridge highlighting the deficiencies in the system when the Region adopted it. She highlighted the concerns of the Cambridge residents paying for something they don’t get but pointed out the benefits of the LRT.

L. Armstrong stated that during the last election he said he wasn’t familiar with the project but now he has become supportive of it. He talked about the history and the benefits and stated he is in favour because the LRT protects the countryside lines which protect farms.

B. Halloran mentioned a letter that was received early in the day from a lawyer regarding the LRT. K. Seiling noted that D. Arnold has reviewed the letter and any further discussion needs to take place in camera.

B. Halloran talked about her last election campaign when she went door to door and the citizens of Waterloo told her they were not in support of LRT and preferred bus rapid transit. She highlighted she can not support the project and she needed to stay true to herself and represent the citizens of Waterloo who still want a referendum. She described the difficult budget year and talked about cuts being made to social services highlighting the cost of the project.

B. Halloran requested a recorded vote.

G. Lorentz thanked all the delegations for the great information and their passion on this project. He thanked Councillor J. Brewer for her comments and her history on Cambridge transit. He stated that as an elected official one of the responsibilities is to be a leader and pointed out that Council needs to remain focused on this. He talked about all the great information out there on this project that is easy for the public to
access and the numerous public consultations. He explained it takes time and commitment to provide a good transit system.

T. Galloway pointed out that the discussion has been around LRT project not on the actual recommendation. He explained the many opportunities the public had to participate in this process. He talked about the recommendation specifically highlighting the budget that was set was met and the cost should come at no surprise since it was discussed in 2011. He pointed out concerns about some of the consortium but he is very pleased with the one that was picked. He highlighted that built into the cost is the life cycle costs and stated this is a great opportunity and we need to move forward with this.

C. Zehr thanked staff and M. Murray for their dedication and hard work. He explained that this DBFOM will transfer significant portion of the risk to others and talked about the cost. He highlighted that this project prevents urban sprawl and complements the transit system already in place pointing out this will create a stronger economy which benefits everyone in the Region. He noted the alternative to the ION is to build kilometers of roadway and explained the cost of doing that and pointed out how widening of roads is disruptive to neighbourhoods. C. Zehr referenced an email received from Anthony Reinhardt that talked about the information against the LRT is misunderstood and lack of consultation on the LRT is incorrect. He stated after more than 10 years of consultation it is time to close the deal and show leadership.

R. Kelterborn noted he represents the people in Wellesley and that this project preserves agricultural land. He talked about the history in Wellesley Township and stated he will support what he thinks is best for his people that live in his community who live under this Regional Government.

D. Craig talked about the residents of Cambridge and their concerns. He stated he believes in rapid transit and intensification but disagrees with the technology. He talked about the studies and research his staff at the City of Cambridge has conducted and the results of those reports. He pointed out that experts have said that LRT will not go to Cambridge in this century and this will create a severe division in the Region.

*T. Cowan left the meeting at 5:40 p.m.

J. Haalboom asked if one of the conditions of the $265 million grant from the Federal Government was to have a private partnership. M. Murray noted the Region was required to look at procuring the project through a public-private partnership essentially and to evaluate the pros and cons of a public-private partnership.

J. Haalboom thanked the delegations for coming out and providing their views on this project all these years. She commended TriTAG for their video noting it provides a good impression of what it is going to look like. She stated she supports the project but has done research and has difficulties supporting the method of public-private partnership.
C. Millar highlighted that staff has done an impressive job and have worked very hard but that the Region has left out 1/3 of the question. She reiterated comments about Cambridge concerns.

K. Seiling asked M. Murray to provide clarification regarding the Region’s liability to pay if companies go bankrupt. M. Murray noted essentially the Region is holding back 22% of the capital costs and the Region will pay GrandLinq the 22% in monthly payments annually. He explained that if GrandLinq goes bankrupt after a few years the Region still holds a significant portion of the capital cost.

K. Seiling thanked everyone involved stating it’s been a very long process. He talked about the growth management strategy and funding from higher levels of government to support the project. He highlighted the projected population growth noting the Region didn’t want to replicate the poor planning and lack of transit in Mississauga. He talked about the history of the University of Waterloo and the expressway. He stated the Region’s vision, noting this is not the time to stand still; it is time to plan and build for our children.

J. Mitchell stated that not everyone in the City of Waterloo is against the LRT. She pointed out 4 of the delegations in favour of the LRT were from Waterloo, that the Universities, urban planners, professors, and majority of the Waterloo Council are for the LRT.

Chair J. Wideman thanked all the delegations that shared their thoughts and dreams of what the Region can be. He thanked staff for their dedication they have put into this project.

Moved by S. Strickland

Seconded by T. Galloway

That the Regional Municipality of Waterloo (hereinafter called “the Region”):

Receive the results of Request for Proposal No. 2012-01 - Stage 1 Light Rail Transit (LRT) Project: Selection of a “Design-Build-Finance-Operate-Maintain Consortium”, as described in this report with the results obtained using Infrastructure Ontario procurement best practices including an independent Fairness Monitor;

1. Approve the selection of GrandLinq as the Preferred Proponent to design, build, finance, operate and maintain the Stage 1 LRT Project;

2. Approve a Project Agreement between the Region and the single purpose legal entity to be established by GrandLinq to undertake the Stage 1 LRT Project, in accordance with the following:

   a. Construction of the Stage 1 LRT Project at a cost of $583,296,727.01, plus HST, to be paid through construction period payments of $452,054,963.43 plus HST and payment of GrandLinq’s long term debt
and equity at a cost of $11,013,651 annually, plus HST, for 30 years following Substantial Completion, subject to final interest rate adjustments at the time of Financial Close;

b. Operation of the LRT system for a period of 10 years following Substantial Completion, with renewals for successive 5 year terms, to a maximum of 30 years, at a cost of $4,036,013 per year, plus HST, subject to annual inflation adjustment;

c. Maintenance of the LRT system for a period of 30 years following Substantial Completion at a cost of $4,530,064 per year, plus HST, subject to annual inflation adjustment;

d. Life Cycle rehabilitation of the LRT system for a period of 30 years following Substantial Completion at a total cost of $263,120,208, plus HST, to be paid in varying annual amounts averaging $8.77 million per year, subject to annual inflation adjustment;

e. Insurance for the LRT system for a period of 30 years following Substantial Completion at a cost of $1,700,000 per year, plus applicable taxes, subject to annual inflation and rating adjustment;

3. Delegate to the Regional Chief Administrative Officer the authority to finalize and execute the Project Agreement and associated ancillary agreements, and to execute documents and certificates in accordance with the terms and conditions of the Project Agreement on behalf of The Regional Municipality of Waterloo for the Stage 1 LRT Project and to do all things as may be necessary or required to give effect to the above-described resolutions, with the foregoing authority to be subject to the terms and conditions described in Report E-14-032/F-14-019;

4. Authorize and direct the Regional Clerk and the Chief Financial Officer to sign certificates and any other documents and to do all things as may be necessary or required to give effect to the above-described resolutions, subject to the terms and conditions described in Report E-14-032/F-14-019.

Carried


Nays: D. Craig, J. Haalboom, B. Halloran, and C. Millar

Excused/Conflict: R. Deutschmann

Absent: T. Cowan
Next Meeting – April 1, 2014

Adjourn

Moved by J. Mitchell
Seconded by K. Seiling
That the meeting adjourn at 6:10 p.m.

Carried

Committee Chair, J. Wideman

Committee Clerk, E. Flewwelling
River Road Extension
King Street To Manitou Drive, Recommended Design Concept
March 4, 2014
What Are The Problems?

• **Heavy congestion** on Fairway Road and surrounding traffic network
  – Intersections with King Street, Wilson Avenue, Manitou Drive and Highway 8 ramp at capacity

• **Collision problem** on Fairway Road

• **Lack of cycling and walking connections** across Highway 8

• Transportation Master Plans (1999/2010) identified a new road as a critically needed link in the transportation network
ALTERNATIVE 4C

EXISTING MATURE WOODLOT

HIDDEN VALLEY RD CONNECTION

RIVER ROAD

HIGHWAY 8
ALTERNATIVE 5

ALIGNMENT OF NEW ROAD PUSHED UP AGAINST HIGHWAY 8

RELOCATED RAMP

RIVER ROAD

N

ALTERNATIVE 5
Key Concerns Raised by the Public at the December 3, 2013 Public Input Meeting

- Impacts on the natural environment
- Stonegate Drive Access
- Changes in Views and Traffic Noise Caused By the River Road Extension
- Changes in Design Requested by a Land Owner
Concerns Raised About the Natural Environment

- Loss of trees and wetlands
- Loss of habitat for Jefferson Salamanders
- Impacts to other Endangered Species or Species At Risk (SAR)
Concerns Raised About Other Endangered Species or Species At Risk (SAR)

- Proposed road alignment follows existing roads and disturbed areas
- Comprehensive documentation of known SAR
- Continue SAR investigations during detailed design and prior to construction
- Implement appropriate mitigation measures prior to and during construction
- Obtain MNR permits as required
STONEGATE DRIVE NEIGHBOURHOOD
TRAFFIC INFILTRATION CONCERNS

- FULLMOVEMENTS
- NEW CONNECTION
- TEMPORARY CONNECTION
- RIVER ROAD
- HIGHWAY 8
- KING STREET
- CRESCEANT
- GRAND RIVER
STONEGATE DRIVE NEIGHBOURHOOD
DECEMBER 3, 2013 PIM
PREFERRED ACCESS OPTION

OUT ONLY

ENTRY FOR EMERGENCY
VEHICLES ONLY

STONEGATE DRIVE
STONEGATE DRIVE NEIGHBOURHOOD ACCESS – RECOMMENDED OPTION

- FULL MOVEMENTS
- RIGHT-TURN ONLY

REMOVE TEMPORARY CONNECTION

FULL MOVEMENTS
STONEGATE DRIVE NEIGHBOURHOOD

NOISE IMPACTS AND
CHANGES TO VIEWS

- NOISE STUDY COMPLETED
- NOISE MITIGATION IS NOT WARRANTED

EARTH BERM
Design Changes Requested By a Land Owner

PROPOSED ROUNDBOOUT

FULL MOVEMENTS

MOVE ROUNDBOOUT AND SHIFT RIVER ROAD

HIDDEN VALLEY ROAD

HIGHWAY 8
Suggestions from Neil Taylor
(Letter dated February 25, 2014)

• Tunnel or bridge on a skewed angle
• Alter River/Hidden Valley intersection to be "Right-out only"
• Include multi-use trail on one side of River Road only to reduce impacts
• Build roundabout on Fairway Road at existing Highway 8 ramp terminal with a fourth leg connecting to another roundabout on River Road
Modifications Suggested by Neil Taylor
February 25, 2014
Suggestions from Neil Taylor  
(Letter dated February 25, 2014)

- Concerns regarding other Species At Risk (Cerulean Warbler)
- Permits for Impacts to Provincially Significant Wetlands
RECOMMENDED DESIGN CONCEPT 5
• 4 LANES
• MULTI-USE TRAIL
• RAISED CENTRE MEDIAN
What Are The Benefits of The Recommended Design Concept?

• Reduced traffic congestion and delays
• Improved safety
• Improved access to Highway 8 for commuters and goods movement
• Vital cycling and walking link across Highway 8

WHILE

• Minimizing the potential negative impacts on the existing natural and social environments
Next Steps in the Study

• Document the study in an Environmental Study Report (ESR) and place the ESR on the public record in April 2014

• Detailed design, property and utility work in 2014-2017

• Construction in 2017-2019, subject to budget approval and property acquisition
QUESTIONS?
Remove Northern Multi-Use Path Between Stonegate Drive and Onramp
-reduces the right-of-way width by 5m, reducing cost and land takings
-pedestrians would be sandwiched between high-speed traffic
-reduces the cost of the River Road overpass
-eliminates potential dangerous crossing movements at Hidden Valley Rd

Consider Building a Retaining Wall on the South Side
-reduces required land takings to build a 2:1 slope adjacent to woodlot
-further reduction of impact on PSW and woodlot features
Preferred Team Recommendation
ION Stage 1 Light Rail Transit (LRT)
The Region of Waterloo has been planning for rapid transit for more than a decade. ION will:

- Limit urban sprawl and ease traffic congestion
- Protect environmentally-sensitive areas
- Preserve farmland and the rural lifestyle
- Move people, create transportation choice

**Regional Growth Management Strategy**

- 200,000 new residents by 2031
- Need for more efficient use of roads
- Control growth, shape the community
Evaluation Process

- **December 16, 2013:**
  - Request for Proposal closes, proposals received

- **Regional staff and consultants reviewed each proposal**
  - Process overseen by Infrastructure Ontario and the Fairness Monitor (P1 Consulting)

- **Technical proposals evaluated on:**
  - Project management, civil design, systems design, construction, maintenance and rehabilitation, operations

- **Financial proposals evaluated on:**
  - Net Present Value
    - Includes: capital, long-term operations, maintenance and lifecycle costs
    - Quality of the financing plan

- Team with the highest overall score selected
Role of Fairness Monitor

- Monitor RFP process to ensure compliance
- Review and approve Evaluation Framework
- Monitor evaluation process to ensure fair and consistent application of the Evaluation Framework
- Participate in process to resolve issues relating to confidentiality and conflict of interest
- Prepare an independent report on the results of the evaluation process
- P1 Consulting certifies that the procurement process was undertaken in a fair, open and transparent manner
- Three compliant proposals
- GrandLinq achieved the highest overall score and lowest overall cost
- Highlights of the proposal include:
  - The capital cost of the GrandLinq proposal is consistent with the capital cost estimate, and can be accommodated within the ION project capital budget of $818 million
  - Projected operating, maintenance, lifecycle and financing costs can all be accommodated within the Region’s approved funding strategy
  - Based on the GrandLinq proposal, ION remains on-time, on-budget and the costs remain affordable based on the Region’s approved funding strategy
GrandLinq – World Class Expertise

- **Plenary**: one of Canada’s largest Public-Private Partnership developers
  - Gold Coast Rapid Transit, Australia (DBFOM), $1.07 billion

- **Meridiam**: major international infrastructure investor
  - Montpellier High Speed Rail, France (DBFM), $2.32 billion

- **Aecon**: Canada’s largest publicly-traded construction company
  - Highway 407 ETR, Toronto (DBFOM), $2.5 billion

- **Kiewit**: one of North America’s largest construction and engineering firms
  - Mid-town Tunnel, New York (DBFOM), $2.9 billion

- **Keolis**: world leader in public transit operations
  - Gold Coast Rapid Transit, Australia (DBFOM), $1.07 billion
Proposal Highlights

- **ION Stops**
  - Strong emphasis on connections, integration with surrounding communities and future development

- **Operations and Maintenance Facility**
  - Ready for initial system and accommodates future expansion

- **Planning and Construction**
  - Focus on having system in operation as early as possible
  - Will minimize traffic impacts during construction
    - Strategically schedule construction to avoid major events/festival
    - Avoid working on major routes in Kitchener and Waterloo at the same time

- **Operations**
  - Passenger-focused approach to ensure needs are recognized at every level
  - Passenger needs will be top of mind as activities are developed and implemented
Capital Costs

- GrandLinq’s total capital cost is $593 million, including net HST
- This includes $532 million funded from the LRT project budget of $818 million and $61 million from intersecting Public Infrastructure Works projects
- The intersecting projects are being completed as part of the GrandLinq proposal, but are being funded from sources other than ION.
  - These projects were planned and budgeted for and would have been implemented regardless of ION
  - For example:
    - King Street and Northfield Drive rehabilitation and reconstruction
    - Underpass on King Street and the railway crossing near Victoria
    - Rehabilitation and reconstruction of King Street (Victoria Street to Union Street)
GrandLinq’s annual operations and maintenance cost for 30 years includes:
- Operations ($4 million, plus HST and inflation)
- Maintenance ($4.5 million, plus HST and inflation)
- Lifecycle (average $8.7 million, plus HST and inflation)
- Financing ($11 million, plus HST)
- Insurance ($1.7 million, plus applicable taxes)

Operations and maintenance, financing, lifecycle and Region costs (electricity, project office, etc.) will be funded by transit fare revenue and the 1.2 per cent tax increase (2012-18) approved by Council in 2011
- The 1.2 per cent property tax increase is being offset by other property tax reductions
- As a result, the annual net property tax increase for ION will be an average of 0.7 per cent, approximately $11 per year on the average household
Protecting the Region

- **Project Agreement**
  - Outlines the Region’s expectations for ION Stage 1 LRT
  - Responsibilities and obligations of both parties

- **Ensures the Region's interests are protected throughout the entire period**

- **For example:**
  - 22.5 per cent of the financing for the capital costs of Stage 1 LRT will be withheld and paid back over 30 years – this protects taxpayers and ensures high performance
  - The long-term financing approach also ensures that GrandLinx has incentive to perform to the Region's standards outlined in the document. If not, monthly service payments, which include the capital payback, are at risk
Next Steps

- Planning & Works Committee: Tuesday, March 4, 3 p.m.
- Regional Council: Wednesday, March 19, 7 p.m.
- Pending Council’s approval, the final Project Agreement with GrandLinq is targeted for completion by April 25, 2014

Construction

- **Overall ION Timeline**
  - aBRT construction (Summer 2014)
  - Start of aBRT service (Early 2015)
  - Start of LRT service (Fall 2017)
Thank You

On-budget • On-time • On-track

connecting to the future
Rapid Growth Requires Rapid Transit

Kevin Thomason
Region of Waterloo
Transportation and Environmental Services
Rapid Transit
Finance Department
Procurement and Supply Services
Financial Services and Development Financing

To: Chair Jim Wideman and Members of the Planning and Works Committee
Date: March 4, 2014
File Code: A02-30
Subject: Stage 1 Light Rail Transit Project: Selection of a Design-Build-Finance-Operate-Maintain Consortium

Recommendation:

The Regional Municipality of Waterloo approves the ION logo, described as Option 2, outlined in Report E-13-100, dated September 10, 2013, as the visual identity of the Region’s rapid transit service.

ION

ION Logo Recommendation for Rapid Transit

The Regional Municipality of Waterloo approves the ION logo, described as Option 2, outlined in Report E-13-100, dated September 10, 2013, as the visual identity of the Region’s rapid transit service.

ION

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ION
**Knox Presbyterian Church ION Stop Design PIC**

Feedback - June 25th, 2013

- Great to see such strong attendance and interest by the community - well done!

- Please consider as much greenery and landscaping as possible. It needs to be way better than the current illustrations are showing - the stations need to have shade trees and flower planters - living greenery and not just be barren, deserted, concrete islands in the middle of the road. See photo examples below for how other cities have successfully made their LRT stations compelling and inviting while dramatically reducing their construction costs and infrastructure needs. For example a shade tree more economical and pleasing than adding another metal sun shelter.

- There is still way too much concrete being shown in all these drawings. The LRT needs to be running on grass - particularly along the rail corridors and parklands where there is no chance of vehicular traffic ever being able to use this right of way as an additional lane. Most LRT systems globally have grass track sections that are considerably cheaper to build, significantly quieter with sound being absorbed and not reflected, much more pleasant for riders/neighbors, and even cooler in the summer. Again please see examples of grass below including even in station areas in a variety of cities around the world.

- Amazing to see 36+ full boards and renderings at the Open House - awesome! These are the mock-ups and virtual reality computer diagrams are we have been advocating for years - well done. It will really help the everyone to understand what to expect for LRT and BRT since there is still much misunderstanding and confusion in the community.

- Nice to see the customization and the "localization" available for each stop. Still need to find more ways to get each station "adopted" and cared for by the local community such as nearby schools displaying their artwork, neighborhood associations promoting events/activities, etc. There is a real opportunity for these stations to become part of the fabric of our community and not just concrete and steel shelters.

- Need to ensure high quality and longevity of stations - i.e., aluminum and stainless steel instead of metal that will just be all rusty in a few years. The new GRT shelters around town set a great example and high quality standard - well done!
RECOMMENDATION:
THAT the Regional Municipality of Waterloo take the following action regarding the Region’s proposed rapid transit system:

- Approve light rail transit (LRT) as the preferred technology from Conestoga Mall in the City of Waterloo to the Annie Street Terminal in the City of Cambridge;
- Approve the LRT route and stations generally as shown in Figure A.1 listed in Appendix B in report E-11-072;
- Approve the implementation of option L3 as Stage 1 of the LRT system Conestoga Mall to Fairview Park Mall and adapted bus rapid transit for to the Annie Street Terminal, as shown in Figure A.2 in App E-11-072;
- Approve funding for the Region’s portion of the Stage 1 capital costs, maintenance costs, subject to annual budget deliberations, based on an increase of 1.2 per cent per year (2012 to 2016), area ratio to the urban transit service area;
- Approve funding for improvements to Grand River Transit bus service budget deliberations, based on an annual tax rate increase of 0.3 per cent; and
- Direct staff to pursue a Regional development charge legislative amendment with funding for LRT project.

APPEAL C

Points Noted from April 5, 2006 Discussion Groups at Regional Building
Discussion Question (same for all five groups)
Looking ahead 25 years and considering that the population of the Region could grow to 730,000 along with significant employment growth. What, in your view, are the advantages and disadvantages of the various transportation alternatives (Rapid Transit and the three Alternatives) in helping us meet our future growth and transportation needs?

<table>
<thead>
<tr>
<th>Blue Group</th>
<th>Advantages</th>
<th>Disadvantages</th>
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<tbody>
<tr>
<td>Baseline</td>
<td>• Less costs in the short-term</td>
<td>• Infrastructure has to catch up to the growth</td>
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<tr>
<td>Road Improvement</td>
<td>• Certain economic stakeholders lobby, etc</td>
<td>• Could generate more auto traffic</td>
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<tr>
<td>&amp; Expansion</td>
<td></td>
<td>• Move development on edge</td>
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<tr>
<td>Improved conventional</td>
<td>• Increased ridership</td>
<td>• Longer travel times</td>
</tr>
<tr>
<td>Transit</td>
<td>• More flexible to adjust to development</td>
<td>• Negative impact on environment (land consumption, air quality)</td>
</tr>
<tr>
<td></td>
<td>&amp; ridership demand</td>
<td>• Externalities of auto accidents</td>
</tr>
<tr>
<td>Rapid Transit</td>
<td>• Move more people faster</td>
<td>• Still needs roads</td>
</tr>
<tr>
<td></td>
<td>• Dependable and reliable</td>
<td>• Mixed traffic – reliability with travel time delay</td>
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<tr>
<td></td>
<td>• Need supportive land use to make Rapid Transit successful</td>
<td>• Peak period congestion impacts buses</td>
</tr>
<tr>
<td></td>
<td>• Need to ensure that planning for Rapid Transit will include better integration with inter-regional public transit services</td>
<td>• Greater reliance on bus lanes – some roads difficult to implement</td>
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<tr>
<td></td>
<td>• Must put in place a supporting and integrated bus network</td>
<td>• High frequency of buses in congestion not a pleasant environment for pedestrians/cyclists</td>
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<td>• Could reduce parking requirements, therefore more development with intensification</td>
<td>• Less able to influence urban form</td>
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<td>• Cautious of impact on cross traffic</td>
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</tbody>
</table>
LRT is on the way
and it's for each of us!
No matter how you get around

By Transit
- fast
- frequent
- trains have their own lane, traffic won't slow it down
- runs every 7.5 minutes

LRT will connect where we live, work, and shop

---

Report: S-11-010
REGION OF WATERLOO
TRANSPORTATION AND ENVIRONMENTAL SERVICES
Rapid Transit

To: Chair Jim Widdoes and Members of Planning and Works Committee
Date: January 25, 2011
File Code: A02-30PV
Subject: RAPID TRANSIT PROJECT OVERVIEW

Recommendations:

Summary:

The Region of Waterloo continues to plan for significant population and employment growth over the next two decades. The Provincial Growth Plan for the Greater Golden Horseshoe projects the Region’s population will increase to 750,000 people by 2031, and that employment will increase to 360,000 by 2031. This is an increase from today of nearly 200,000 people and 80,000 jobs.

To provide for the projected growth, the Region will have to either continue its pattern of outward growth or encourage greater intensification in existing developed areas. High-quality rapid transit has been identified as a crucial component in facilitating intensification and minimizing/reducing future “urban sprawl”. A high-quality rapid transit system is vital for the Region to evolve into a more compact urban form, helping to prevent sprawl and protect sensitive environmental landscapes and high quality farmlands from urban encroachment. The rapid transit system being considered in the Region has the multiple goals of providing transportation choices, meeting future transportation needs, and building a visible, vibrant and sustainable community.

If the Region continues with current trends of auto-use, the road network will need to expand by at least 50% additional lane-kilometres of traffic by 2011. As development speeds outward and congestion grows on the major arterial roads, further road construction will be necessary, including impractical road widenings through mature neighbourhoods. Without rapid transit, the road expansion costs including property would be in the range of $1.4 to $1.8 billion. On top of the high cost, the road expansion would seriously threaten the quality of life in much of the community. Achieving higher transit ridership targets will not eliminate the need for road improvements, but it can reduce the amount of road construction required and reduce road expansion costs by $400 to $500 million.

With little opportunity to add or expand the road networks in our core areas, and the expected increase in population, Regional Council has repeatedly identified rapid transit as the most sustainable transportation solution to meet our community’s future transportation needs.

In 2006, the Region began the Rapid Transit Environmental Assessment (REA) to identify the best possible rapid transit system for Waterloo Region. In June 2009, after extensive public input, Regional Council approved a preferred technology and an implementation staging plan for Waterloo Region’s rapid transit system.

This report reviews the rationale for building rapid transit, its long-term benefits, and the process used to substantiate the recommendations approved in June 2009. It also outlines the work being done to address affordability concerns, with implementation options for the rapid transit project.
Rapid Growth Requires Rapid Transit

Honourable Mayors, Members of Council and Guests,

My name is Kevin Thomason and I am the owner of 1115 Cedar Grove Rd in Waterloo.

Each day approximately 25 to 30 people move or are born into Waterloo Region—totaling about 10,000 additional residents we need to accommodate each year.

Rapid Growth and Rapid Transit Procurement

Kevin Thomason

REGION OF WATERLOO
TRANSPORTATION AND ENVIRONMENTAL SERVICES
Rapid Transit

TO: Chair Jim Wideman and Members of Planning and Works Committee
DATE: February 15, 2011
FILE CODE: A02-30PW

SUBJECT: RAPID TRANSIT IMPLEMENTATION OPTIONS

RECOMMENDATIONS:

For information.

SUMMARY:

The Region continues to plan for significant population and employment growth over the next two decades. To provide for this tremendous growth, the Region will have to either continue its pattern of outward growth or encourage greater intensification in existing developed areas. Recognizing this challenge, the Region began a Rapid Transit Environmental Assessment (EA) in 2008 to identify the best possible rapid transit system for Waterloo Region. As part of the EA, the Project Team evaluated a number of rapid transit technologies. Bus Rapid Transit (BRT) and Light Rail Transit (LRT) were shortlisted because they had the greatest potential to:

- support the Region’s redevelopment and intensification objectives;
- optimize the use of road and railway corridors to serve major destinations; and
- be compatible with existing and planned built neighborhoods.

In June 2009, Regional Council approved a Rapid Transit implementation plan subject to satisfactory Federal and Provincial funding. In 2010, the Provincial and Federal governments announced their funding commitments and staff commenced a review of the financial implications of the Rapid Transit plan. During the fall of 2010, concerns were raised about the affordability of the rapid transit project, specifically in terms of the Region’s contribution. Staff have been undertaking an objective review of project implementation options for Council’s consideration, in order to identify a rapid transit project that is affordable to the Region and provides best value to the community.

This report provides background information including new financial analysis that builds on the previous six years of studies and will be the basis of the next round of public consultation, leading to a staff recommendation regarding a preferred rapid transit system.
Which Rapid Transit Option Provides the Best Value to our Community?

The Region of Waterloo is planning for a rapid transit system that will connect the cities of Waterloo, Kitchener and Cambridge and many important destinations along the way. Along with an expanded and redesigned Grand River Transit bus network, rapid transit is an important element needed to move people and manage growth in Waterloo Region in the decades to come.

The Region is now considering some key decisions, before the project gets underway. Important questions include: What will this system look like? How and when will it be implemented? How much will it cost? And what impact will it have on taxpayers?

At the heart of these deliberations is ensuring that we find the best value spent — resulting in an effective and affordable transit system that will meet the future of our community, and stand the test of time.

A number of implementation options have been developed, and the

An Analysis of the Critiques of the Rapid Transit Proposal

Jeffrey M. Casello Ph.D., P.E.
Associate Professor
School of Planning
Department of Civil and Environmental Engineering
University of Waterloo
Light rail is the right vision for an ambitious region

Waterloo Region is a community that is slowly but surely gaining its place on the international map. Our community is being pointed to as the home of world-leading high-tech companies, colleges, universities, research-and-development centres and think tanks. We are envied the world over for having broadened our base beyond traditional manufacturing to emerge as leaders in the new knowledge economy. Determination, co-operation and innovation continue to be key drivers of success — the very qualities on which our community was built. The accomplishments of this region in an ever changing and complex world have been astonishing. So the question is: Just how ambitious and successful do we aspire to be in the future?

The debate regarding the pros and cons of light rail provides an excellent barometer of our ambition. The Region of Waterloo Region and being willing to seize these opportunities is a measure of our confidence in this region's potential beyond our imagination, and yet, is it possible to achieve even greater goals?
The proactive voice for the environment in the Grand River watershed

Grand River Environmental Network
Position on Proposed Region of Waterloo LRT/BRT

Population growth, climate change, traffic gridlock and air pollution are all driving the need for change in how we live, work and travel, not only in Waterloo Region, but in the world.

The Grand River Environmental Network recognizes that public transit is an effective and efficient means of dealing with many of these pressing issues. GREN regards the LRT as the spine of a much-needed upgrade to Waterloo Region’s public transit system. No system is ideal, no system is cheap, but if the LRT meets the following criteria, GREN offers its support.

- Integrate with other modes of transportation – GO trains, inner and inter-VIA, walking, biking and airport – in a timely, convenient manner;
- Safe, clean, sustainable and affordable move away from private car use;
- Requirements of the Provincial Places to Grow Act for urban intensification to 2041, as well as urban, areas of the Region. With the firm countryside line and protection embedded in the Region’s Official Plan, the LRT in the urban stop urban sprawl and protects farmland and water recharge areas outside

Please take a look at the following website for more information:

http://tritag.ca/m/lrt
FOR IMMEDIATE RELEASE:
March 10, 2011

Reference: Smart Transit Options for the Region of Waterloo

The municipal election has come and gone, but the discussion of our Region’s transit needs has continued to be top of mind for public and politicians alike. The Cambridge Chamber of Commerce is presently polling members on whether they prefer BRT, LRT, or think both are too expensive. It may come as no surprise that over 50% of respondents are saying they think both are too expensive. The four local newspapers have all had related commentary. And common concerns continue to surface: as a growing region, we need to plan for more transit, but the public doesn’t like the cost of the options being promoted, and the Region’s staff are struggling to find a solution that meets our needs for the right price.

Community Renewable Energy Waterloo (CREW) is one of many regional non-profits that had an opinion on the transit discussion during the election. Taxpayers for Sensible Transit repeatedly expressed grounded concerns about costs. TiTAg (Tri-Cities Transport Action Group) continues to strongly favour LRT as the only technology that can serve our future needs adequately. During the election, only one of the candidates for any of the City or Region posts clearly supported LRT (and did not go extinct), mostly questioned both BRT and LRT, and all four councils are still giving mixed signals.

CREW consulted with experts on all sides, and is proud to release the attached summary report which reassesses many of the key concerns about BRT (Bus Rapid Transit), LRT (Light Rail Transit), and a relatively new technology that seems to offer a blended solution: Aerorail, produced by a company called Aerorail. Studies released thus far by the Region’s staff have focused heavily on BRT and LRT, but were fairly quick to dismiss other options; too quick, in CREW’s opinion. George Kornetshuk of CREW says “We called some of the other technology suppliers, and the things they said did not seem to match with the Region’s report, so we looked into it further.” Derek Schakel adds “Aerorail in particular seemed to be surprisingly competitive, versatile, cost effective, and well suited to our Region’s needs for something that starts modestly, but includes Cambridge right from the start, and then grows with ridership over time.”

The CREW report offers a different perspective on the Region’s assessment of the various technology options, and calls upon the Region to explore a pilot Aerorail system: an overhead LRT that avoids all the infrastructure costs of dedicated lanes and tracks for either BRT or LRT, and which could offer the start of new stations from Wilfrid Laurier University to the University of Waterloo to the Research and Technology Park for the same cost as the roadwork currently being done at the Weber rail crossing. This mini transit system, prove it’s worth, would offer all the benefits of LRT for less than a fraction of

Waterloo Region Rapid Transit Initiative
Individual Environmental Assessment
Terms of Reference Preparation

Input Public Meeting held on Wednesday, December 8, 2004
Eastwood Collegiate Institute

REPORT CONTEXT

The Regional Municipality of Waterloo, intends to prepare a full Individual Environmental Assessment (IEA) for development of Rapid Transit service linking Waterloo, through Kitchener to Cambridge. The need for a Rapid Transit service was identified in the Regional Growth Management Strategy adopted by Regional Council on June 23, 2003. The corridor is intended to act as one of the key catalysts to influence urban form, support downtown core revitalization and control urban sprawl in the Region. It will also serve future travel needs in the Region.

This project will fulfil the requirements of the Ontario Environmental Assessment Act (OEAA) as well as the Canadian Environmental Assessment Act (CEAA). For a Provincial EA, the CEAA requires that the proponent (Region of Waterloo) first prepare a Terms of Reference to define the framework of the proposed EA project. The Terms of Reference must then be approved by the Ontario Minister of the Environment. In preparing the Terms of Reference and subsequent EA Project, public input and comment will be invited. The first opportunity for formal public input to the preparation of the EA Terms of Reference took place on December 8th, at a public information session held from 6:30 to 9:00 p.m. at Eastwood Collegiate Institute.

The December 8th public meeting provided an opportunity for interested members of the public to provide comments or questions on the proposed Rapid Transit project. The comments and questions received during the meeting will be used in the preparation of the Terms of Reference for the EA project.
Rapid Change Requires Rapid Transit

We are lucky to live in a thriving region. Each day approximately 30 to 40 people move or are born into Waterloo Region – more than 10,000 new people each year. This is the equivalent of about a bus full of people a day moving into our community. However, most don’t come on the bus – they arrive by car.

This equates to about 25 to 30 new cars today on area roads, another 30 more cars tomorrow, 200 more vehicles next week, totaling about 9,000 more cars on area roads this year alone. This is in addition to the 9,000 new cars that arrived last year, the 9,000 more cars likely arriving next year, etc. It soon becomes clear that we just can not build new roads fast enough to keep up with this pace. In fact, despite spending hundreds of millions of dollars in the past couple of years alone on area road improvements and countless construction projects area roads are increasingly congested, travel time, our carbon footprint and frustration is rapidly increasing while our air quality deteriorates.

We need a reliable, public rapid transit system along with improved cycling paths and facilities that will give people a better choice on how they choose to travel around our community.

Our planet is increasingly suffering from an unsustainable lifestyle and with the recent announcement of a 16% increase in gas prices, we each need to consider our transportation options.

Notice of Draft Terms of Reference and Public Meeting #2
Rapid Transit Initiative Environmental Assessment (EA)

The Municipality of Waterloo has prepared a Draft Environmental Assessment (EA) Terms of Reference for the development of rapid transit service extending from Waterloo, through Kitchener to Guelph. The Growth Management Strategy adopted by Regional Council on June 25, 2003 affirmed the need for additional rapid transit service linking these three urban areas in the Region. Rapid transit is intended to act as the key catalyst to influence urban form, support downtown core revitalization and control urban sprawl. It will also serve future travel needs in the Region.

Terms of Reference provide a framework for completing an individual EA study that will assess rapid transit technologies and alignments and recommend a preferred rapid transit system.

Preparing an individual EA, the Environmental Assessment Act requires that a proponents prepare Reference (ToR). The Minister of the Environment (MOE) has the authority to approve the Individual EA is then prepared in accordance with the approved ToR.

ToR is being provided to facilitate consultation with interested stakeholders and members of the public. The ToR is available on the wastewater website at www.waterloo.ca/transport. In addition, starting Wednesday, March 8, 2006, the ToR will be posted at all public libraries and main municipal offices in the Cities of Cambridge, Kitchener and Waterloo at the Regional Headquarters.

Meeting #2 will also provide the public with an opportunity to meet the Project Team to review questions and issues related to the Draft ToR. This Public Meeting will be held as follows:

Date: Tuesday, March 8, 2006
Time: Presentation 7:00 - 7:30 PM
Group Discussion 7:30 – 9:00 PM
Place: Cameron Heights Secondary School
301 Charles Street East
TEMPS D'ATTENTE

D  ROTONDE  05 min
C  GARE CENTRALE  06 min
D  ROTONDE  12 min
C  GARE CENTRALE  12 min

14:49
Presentation to Waterloo Regional Council
Planning and Works Committee
March 4, 2014
Public Meeting Re: Light Rail Transit Procurement Decision

Rapid Growth Requires Rapid Transit

Honourable Mayors, Members of Council and Guests,

My name is Kevin Thomason and I am the owner of 1115 Cedar Grove Road, Waterloo.

Well... Here we are at another milestone. For those who argue there have been no meetings, little chance for public input, and that LRT has been rushed through without any consultation, it certainly seems like there has been a heck of a lot of meetings and events over the past twelve plus years.

In fact, while preparing for this presentation it was astounding to see just how many staff reports, meeting agendas, media articles and other materials I have accumulated - 2006, 2004, 2009, 2013, 2011, even some going back to when kids who are currently preparing for high school hadn't even been born yet. This has indeed been a long and extensive process that has continually involved people throughout Waterloo Region.

It was over five years ago that I helped to pull together a diverse group of business people, students, environmentalists, farmers, and numerous community organizations to help ensure our Region creates the needed transportation infrastructure. This wide variety of individuals and community groups has printed and distributed information to thousands of people, held events, and given countless interviews and presentations about rapid transit in our community. It has been
wonderful to see the support and excitement from so many fellow citizens once they finally understand this complex LRT proposal and what to expect in the years ahead.

In my travels for work and vacations, I have been lucky to experience LRT systems around the world. I have shared what seems to have worked well, or not worked, in other communities so we can build the best possible system here. I apologize for the length of some of those e-mails - though I did try to include lots of colourful photos.

Congratulations to Council, Regional Staff, Municipal Staff, and everyone involved in getting us to the point that we are at today. So many communities don’t even get this far and it is even tougher when so many citizens including myself demand world-class. And yes, I am still advocating for grassy sections along the LRT tracks like we see here in many of my photos from Strasbourg, Athens, Vienna and other cities.

This Staff Recommendation for the selection of the Design-Build-Finance-Operate-And-Maintain Consortium is excellent. It is thorough, well-researched, realistic, affordable, and progressive. This P3 is modeled on some of the leading procurement methods, used by some of the most innovative cities, with the most successful transit systems in the world like Vancouver that saw their Skytrain Rapid Transit line completed months ahead of schedule, under budget, and continues to operate with higher on-time and satisfaction levels. Well done and thank you.

Growth

Despite the calls from some citizens to do nothing, or to avoid any sort of new taxes or infrastructure investments, we cannot lose sight of the fact that each day approximately 25 to 30 people move or are born into Waterloo Region – totaling about 10,000 additional residents we need to accommodate each year. This is the equivalent of almost a bus full of people each day moving into Waterloo Region and it is predicted to continue for the next 20+ years.
Not only do we have to come up with several thousand new homes and apartments each year, with current rates of car ownership this means that there will be about 15 to 20 new cars today on area roads that weren’t here yesterday, another 20 more cars tomorrow, about a dozen more cars the next day, 100 more vehicles next week, and so on, eventually totaling thousands of additional cars on area roads this year alone.

Despite spending hundreds of millions of tax and stimulus dollars on new bridges, widening existing roads, and even entirely new roads, our streets are increasingly congested, travel time continues to increase, our carbon footprint grows, and our local air quality continues to deteriorate making it one the worst in the province.

We simply cannot build enough new roads, bridges, and parking fast enough to keep up with this type and pace of growth. We need to change. Though, we also know that transportation trends are rapidly evolving - younger generations and the entrepreneurs who will help to ensure our future success want to walk to work, cycle, use transit, settle in the cores, and avoid the high costs of car ownership while also increasingly forgoing suburban lifestyles.

**Leadership**

Whether we like it or not, we cannot stop the hundreds of thousands of people predicted to move into Waterloo Region. However, we can effectively plan for and carefully manage this rapid growth to ensure our community continues to be an appealing place to live, work, and visit.

We should be so thankful that our region is a vibrant place of growth and is not experiencing the declines seen in other communities so jealous of our success. Our success is not an accident though. It takes vision, planning, courage, determination and persistence. This Council has consistently demonstrated leadership to find solutions to protect the environment and balance our significant growth, be it the
new Regional Official Plan, Regional Growth Management Strategy, the Transportation Master Plan, leading with recycling, no smoking bylaws, ESPA’s, the Countryside Line or now Rapid Transit – these are carefully considered, highly integrated, meticulous, and innovative plans for our community.

Rapid Transit in particular hasn’t been easy. Dozens of concepts from flying buses to ski lift gondolas have been researched, evaluated, and eliminated. While some may still try to argue for BRT along the entire Rapid Transit route, mistakenly believing that buses are cheap, please remember the cost estimates that showed the dedicated BRT route costing almost as much as LRT with less of a core redevelopment impact, and with BRT soon showing capacity issues as well as costly overcrowding along the central spine of the Region.

And while Cambridge needs LRT as soon as possible – the best way to ensure its arrival in the southern portion of our region is to get LRT running as promptly and successfully as possible in the central portion of the Region.

There are some still calling for referendums, delays, and postponement - regardless of the fact that there have been several municipal, regional, provincial, and federal elections already during all this process with each level of government still strongly endorsing this LRT plan.

We only have to look as far as Toronto to see how poor planning, lack of leadership, lack of collaboration, never ending debate, and an unwillingness to invest in their community can lead to a transportation crisis. We must do better.

In all the years that we have been talking about rapid transit, other cities – particularly in Asia and other emerging economies pictured here, have planned, built, and are now successfully operating massive new transit systems. If we are to compete effectively, our companies need to have world-class infrastructure too and any delay to this Rapid Transit plan is only going to leave us even further behind.
Cost vs. Value

Success stories, my experiences investigating LRT systems abroad firsthand, along with ridership results from cities such as Charlotte, Calgary, Portland, Strasbourg and others demonstrate that LRT is already a viable solution that our community can afford.

While few can even remember the original cost of the extremely controversial Conestoga Expressway built back in the 1960’s - and nobody can even seem to recall if it was under or over budget - adjusted for inflation, the tax increase it required then was proportionally much greater than the investment being asked of our generation now for rapid transit.

Put into perspective the $253 million local capital cost contribution for LRT is significantly less than the $320 million already being spent on area Expressway projects, the $270 million planned for just a few local road projects, the $540 million being spent on water and sewage plants, or the hundreds of millions just invested the new Kitchener Courthouse to name a few local projects.

This is affordable – particularly compared to the total costs of alternatives or even the ultimate costs of doing nothing.

LRT costs work out to be a very small percentage of the overall Regional budget. The local capital costs are equivalent to just three months of Regional budget. And if the Region found a way to reduce expenses by less than 3% each year, it would completely cover the annual costs of LRT.

Conclusion

In Conclusion, LRT is not about cost as many proclaim, but value. It promotes SMARTGrowth, healthy lifestyles, maximizes our existing infrastructure, is already attracting development, investment, and leading organizations, while helping to
retain outstanding talent in our community that other cities and regions are eagerly trying to lure away.

LRT will help to change our future growth to a more sustainable pattern, protecting our rural landscapes and drinking water aquifers. It will help to ensure our quality of life with less sprawl pressures on our greenspaces, Mennonites, and thriving Regional agricultural industry.

With hundreds of thousands of people on the way and dozens already arriving daily, we need your leadership now. Please heed this staff recommendation and approve this contract to commence construction of LRT to address our rapid growth, and to ensure the best possible future for everyone in our community.

Thank you.

Kevin Thomason
Phone: 519-888-0519

kevinthomason@mac.com
(2014 March 4 Address to Waterloo Regional Council Planning & Works Committee)

LRT Now!

Chairman Galloway, Councillors and Staff, fellow citizens –

My name is Eleanor Grant and I’m a resident of uptown Waterloo.

There’s no doubt in my mind that Kitchener-Waterloo is ready for light rail transit, and we should build it without delay.

I actually registered for today in order to speak against SNC Lavalin. I’m very thankful that that company was not chosen, and I don’t have to give that speech! So I’d like to use this time to broach 2 subjects that are intimately related to the LRT project but are often overlooked:

- 1. How do we do right by low and moderate income residents? and
- 2. How do we do right by Cambridge?

How do we make sure that everybody benefits from this thing?

You’ve heard me speak here over the years on poverty issues, such as the discretionary benefits. I want to say as well, that I greatly appreciate the huge investment our region is making in improving the bus grid. This improves the lives of lower-income folks throughout our cities – even though as you know there are some important glitches to work out.

1. My big concern today is how the LRT will affect HOUSING. If we aren’t careful, we’ll end up letting a few developers bid up the price of all the land near the LRT route. Rents and condo prices could go through the roof, forcing lower income people to live way out in the suburbs where they would have to take 3 buses to go anywhere. This would not be the livable city we say we want.

Recently I was at Waterloo city council to discuss a 25-storey condo tower that’s planned for the end of my street. I said, Our uptown is becoming a sea of construction cranes – but where are ordinary people going to live? I’d like to be able to retire in my neighbourhood. Most people aren’t “young professionals”!

I need to hear from you people what you’re going to do to make sure there are affordable places to live near the rapid transit. We need to find an array of tools to create and preserve affordable housing in the core. This has to go hand-in-hand with building the LRT. If you wait till the rails are laid, it will be too late. Transit and housing are two sides of one coin.
I wasn’t always in favour of light rail. I thought, as some people in the room today do, that buses would be cheaper and more flexible and all that. What changed my mind was the trips I had to make to Cambridge in connection with my former job. I found that the iXpress buses were Standing Room Only – and that was back in 2011. Since that time the frequency has been increased to 10 minutes, and they’re still packed.

2. Now, I still go to Cambridge frequently, because I kind of fell in love with the place. I want to see our region be a united whole – but right now it’s anything but.

Recently I’ve been dukiing it out in cyberspace with Mayor Craig, about the LRT. I tried to say to him that the Region has taken many steps to show good faith to Cambridge:

- getting that Delta intersection fixed, a necessity for running rapid transit down Hespeler Road;
- a new iXpress bus to Hespeler coming this spring;
- the adapted bus rapid transit – aBRT – to be built this year, along with
- a new bus hub in front of Cambridge Centre mall;
- a million $ a year for boosting ridership;
- improvements planned for Ainslie terminal;
- and – best of all – the public consultations on extending light rail to Cambridge will start in June.

All of this is very good news!

But I can also see why our reassurances ring a little hollow. When the big announcement came out on Friday about the LRT contract, nothing was said about when the aBRT for Cambridge will get started – which is not part of this contract but a separate one. My sense is that, well, we haven’t gotten around to putting out tenders for it yet because we were preoccupied with bigger things. But it should have been done first. We promised them aBRT in 2014, and now we’re saying spring of 2015. If the timeline on a big project can be kept, why not on a smaller one? They are rightly asking, When do we get something back for our taxes? They deserve to be given a serious timeline.

Bus routes are being eliminated for seniors’ buildings in Hespeler and west Galt. (I was at that council meeting last week, and Councillor Brewer was there.) You don’t DO that to people. For seniors, that bus is 100% of their access to the world. Now they think you’ve taken their bus away so that you can build trains for the elites. Even if these are technically quite separate things, that’s how it is PERCEIVED. The Region has loused up badly here. But it’s also very fixable.
I went to see the plans for renovating Ainslie terminal. They were very nice — but it was not made clear enough that one option would support future light rail while the other wouldn’t.

The Mayor didn’t mention these particular concerns to me. He did, of course, mention his long struggle to get GO train service to Milton. I was pleased to hear your staffer tell Cambridge council that the Region will support this effort. I would personally suggest putting the plans for Ainslie on hold, until it can be determined whether this Milton thing can actually happen — because if it can, then a different multi-modal hub might have to be built.

There’s a whole lot that we can do better, to build confidence on Cambridge’s part toward the Region. I’ve only scratched the surface here. Winning the trust of our neighbours south of the 401 at this time, should be Job 1. This LRT should be unifying us, not dividing us.

In Kitchener-Waterloo right now we’re restless. We’re excited about the momentous changes that are coming for us in the next few years. We’re impatient to get to our future.

As we go forward to award this contract today, let us be resolved to bring all the people with us. We must do everything possible to ensure that there’s affordable housing in the core of our cities. We must do everything possible to get the improvements in Cambridge up and running, and listen and communicate better with the people.

If we get these things right, this light rail project can be the all-round winner that it should be for our region.

Let’s build!
The principles:

Waterloo region population is growing rapidly. We must expand.

To expand affordably, we need to intensify: “grow up, not out”.

To intensify, we must focus development in built up areas.

To serve the transportation needs of built up areas, we need to encourage use of transit and active transportation.

LRT is an effective tool to draw and focus intensification, and to serve the transportation needs of built up areas.
The objections:

We don’t need LRT.

We don’t need to intensify.

Everybody drives.

This will only raise my taxes/we can’t afford it.
Mississauga
742,719 (2011)

Kitchener-Cambridge-Waterloo
~700,000 (2031)
Roads
Mississauga’s Cost of Sprawl

Infrastructure Deficit: $1.5 Billion
Debt financing: $35-50M/year

Number of Lane kms

<table>
<thead>
<tr>
<th>Year</th>
<th>Kms</th>
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<tbody>
<tr>
<td>1991</td>
<td>3,580</td>
</tr>
<tr>
<td>2001</td>
<td>4,750</td>
</tr>
<tr>
<td>2011</td>
<td>5,200</td>
</tr>
</tbody>
</table>

Major Road Construction (new) vs Rehabilitation Costs ($millions)
Roads at Capacity

Today
Roads at Capacity

20 years – Do Nothing
Hurontario-Main LRT

[Diagram showing the proposed LRT route through Mississauga, including stations such as Brampton GO, Queen, Nanwood, Charolais, Gateway Terminal Rd, Sir Lou, Ray Lawson, Highway 407, Derry, Courtney Park, Britannia, Matheson, Bristol, Eglington, Interregional Transit Terminal, Duke of York, Robert Speck, Matthews Gate, Central Parkway, Cooksville GO, Dundas, Queensway, North Service, Mineola, Port Credit GO, and Elizabeth.]
“One of the greatest things that we did not do well, and all municipalities are guilty of this, was that transportation should have been the basis of all decisions back then.

When we look at the GTA, we say 'why are we in this problem?' Transportation is one of the things that should be a land use decision, but it's never been that way and it still isn't.”

- Mayor Hazel McCallion, Feb. 27, 2013
Good afternoon Chair Wideman, Councillors, staff and guests. My name is Deb Swidrovich and I live on Wilmot Line in the City of Waterloo.

I am here today to say “thank you”.

Thank you for your foresight and your ongoing commitment to the implementation of our Light Rail Transit system. I appreciate your decision not to take this to a referendum and for your steadfast support and financial commitment to date.

I am comforted by the fact that a number of you and staff were here from the beginning when Light Rail Transit was first discussed over 10 years ago. It has been a long haul, and it is your history with the LRT, and particularly your understanding of how it plays into the Regional Official and Master Transportation plans that convinces me that we are in good hands.

I have been involved in a number of referendums and I can tell you that it would take exhaustive effort to bring the public up to speed on just the highlights of the system, although there has been ample opportunity to attend hundreds of public meetings, presentations, workshops, etc, over the last several years. Based on my door-to-door experience, it is my opinion that most people would not be as informed as they should be to make an educated decision on this topic -- but you are.

I am a resident of the City of Waterloo, but I live in a rural area, on a road that is considered a countryside line. It divides the development on the east side of the road in the City from the farm fields to the west in the Township of Wilmot. I also live in one of the regionally-designated environmentally sensitive landscape areas -- the Laurel Creek ESL.

As someone who lives on the periphery, I feel the pressure at our borders, e.g. the Boardwalk at Ira Needles, the first phase of construction of 1600 homes near Wilmot Line, the future development of the Erbsville South Block Plan and most recently the completion of the North Waterloo Scoped Subwatershed Study and future development within the Beavercreek Meadows District Plan.

We have watched the traffic patterns change. We know that we will continue to see stress on the protected, environmentally sensitive areas of the 4Ws (Waterloo, Wilmot, Wellesley, Woolwich); and we know it will be more and more difficult for those of us who have worked 10-15 years to protect this area from the inevitable increase in traffic between our city cores and our wetlands, forests and farm land.

Light Rail Transit will provide the rails in the ground that the developers can take to the bank. Their interest in our downtown cores will help concentrate
development away from our countryside lines, and provide the necessary transportation for years to come. It is the best option in view of our abysmal air quality; will help reduce the amount of salt and wear and tear on our roads; will help reduce congestion, and provide effective transportation well into the future.

So... what are my immediate benefits? Well... I'm not likely to use the LRT because of where I live right now, but it isn't a stretch for me to imagine that is will become useful when I am forced to move to town when I can't keep up the maintenance on my country property, or drive as I do now, or when I can't afford the cost of gas. And... I hate to say this, but there will be a number of us who will not be around in 20 years, and it is important that we think about that -- truly look past what we've become accustomed to, and provide a transportation system that will be effective in our lifetime, and will serve our children and our children’s children when we're gone.

I can tell you that I am seeing support for the LRT like no other issue I have been involved in; not only from my generation, but especially from young people. They are excited about the future of transportation in the Region, and are out there actively promoting Light Rail Transit; talking about our ability to attract commerce, to provide sustainable living for our residents and to provide easy transit to our visitors.

There is no reason to believe that the population predictions are wrong. The people are coming, and the numbers are growing now of those who are attracted to a way of life quite different than the suburban lifestyles that we have become accustomed to. There will be those who want to live in suburbia, but there are growing numbers who want the option to live an urban lifestyle, not to own a car, to be able to travel on foot or by bike, and they expect effective public transit between their place of work and home.

So... again, “thank you”. Keep up the good work. I encourage you to continue to stay on budget, on time, with the least disruption to our residents and visitors; and ask that you continue to include Cambridge in the plan and push to have Light Rail cars in their area in the near future.
light rail contract

mike, kandace, and caleb boos
2 days old - Ottawa/Mill PIC
$24.98

business as usual
phased light rail

$22.63
actual $11

this is a really good deal
let's move forward with ION
Dave MacDonald Remarks
Waterloo Region Planning & Works Committee
Tuesday, March 4, 2014

CHECK AGAINST DELIVERY

Good afternoon Members of Regional Council and fellow taxpayers.

Whether you live in Waterloo, Kitchener, Cambridge, or in one of the townships - everyone has
an opinion on the LRT.

Unfortunately, the Region’s failure to effectively communicate project details and costs has
turned a community-building project into an unnecessarily divisive issue.

Recently, I was speaking to Karen, a voter in the City of Waterloo.

Karen is a mother of two young children who works in Waterloo; her husband commutes outside
the Region.

As someone who recently moved here from Toronto, she was shocked at how badly
underserviced much of the Region is by our transit system.

She didn’t understand how we could possibly afford an entirely new transit system when we
have such gapping holes in the current one.

She didn’t understand why this Council wasn’t fighting harder for full LRT funding like the
Council’s in Hamilton and Mississauga.

She also didn’t understand the rush to sign on the dotted line before the October election.

Karen is certainly not alone in her concerns.

It goes without saying that our Region’s transit system needs major improvements.

No one is arguing against a more responsive and connected transit system.

But, over the past few years, we’ve heard concerns from residents, taxpayers, elected officials –
and even MTO experts over the rising construction and operational costs of the LRT.

The real question has always been: Can we afford the LRT now and over the next 30 years.

Here’s the thing: If we didn’t have a $265 million plus infrastructure deficit or, if like Hamilton, the
province was paying the full costs, the debate raging in our community might be very different.

But the choice isn’t LRT or nothing.

According to a December report by the Institute for Transportation and Development Policy, bus
rapid transit, can spur development far more efficiently and at a lower cost than an LRT.
Here are a few real world examples of how bus rapid transit has leveraged more development investment.

- In Cleveland, the Euclid Avenue BRT project completed in 2008 generated $5.8 billion in development that’s $114 for every transit dollar the City invested.

- In contrast, the Blue Line LRT in Portland completed in 1986 only generated $3.74 for every dollar invested.

But this isn’t the first time the Region has heard these numbers.

Both the Region’s own staff and Ontario Ministry of Transportation officials have provided evidence that rapid buses deliver more value for money.

We’re seeing it York Region where plans for the Viva Next BRT system – will significantly improve mobility and dramatically increase ridership across all 9 municipalities in York Region.

Of course part of the value proposition for light rail is certainly the projected ridership.

So, what does Waterloo Region have in common with Minneapolis and San Jose?

Minneapolis Minnesota - a city of over 3.4 million and home to the largest shopping centre in North America. They have an LRT.

San Jose California has about 2 million people and is known as the Capital of Silicon Valley. They have an LRT.

We have a great deal to be proud of – to celebrate here in Waterloo Region.

But with a population a quarter the size of San Jose and about an eighth the size of Minneapolis, does it make sense that our projected ridership numbers are virtually the same? Something just doesn’t add up. [pause]

Without question, we need to improve our regional transit system to better serve the people who live here.

But as Calgary Mayor Nenshi said recently in Toronto, “I don’t understand why you would not spend less to serve more people.”

Even provincial Transportation Minister Glenn Murray agrees, saying yesterday in the Ancaster News that; “The decision between LRT and BRT should be based on economics.”

MTO planners shared the same view – that’s why after failing to show that our LRTs benefits exceeded the costs, the province decided not to fully fund our LRT.

But we don’t have to look to U.S municipalities or even Alberta to understand how to effectively plan a rapid transit system.

Here in Ontario... many other municipalities are doing a better job engaging their citizens and securing government funding for transit projects.

In Hamilton, City Council’s official position is that they will welcome the LRT only if it comes with full funding with no strings attached – meaning no new taxes, fees or levies.
And the province’s response, and I quote:

"Hamilton won’t have to make a direct capital contribution to build their proposed $800-million LRT system"

Is Hamilton playing the LRT game better than we are? It does seem that way.

Regardless of your opinion on the LRT, almost everyone agrees that the Region has mishandled this project.

As reported in the Record, since 2011 this Council has assured taxpayers the LRT was affordable; until a sudden flip-flop in late January over concerns that taxpayers can’t afford to finance the LRT as originally planned.

Then in Friday’s staff report, the LRT was suddenly under budget thanks to some creative accounting that allocates costs over decades instead of several years.

But buried deep in the details of this report we now know the true cost is closer to $2.3 billion over 30 years.

When provincial experts and even local politicians raised concerns on the escalating costs, we expected the Region to take it seriously not play a shell game with public funds to make the project appear to be more affordable.

Taxpayers deserve an open, honest and accountable municipal government.

Sadly, many voters have come to feel that democracy in Waterloo Region is broken.

In recent years, the Region has decided it knows best...Better than provincial planners...Better than transportation experts not on the Region’s payroll...Better than the taxpayers who you are hired to represent.

When Regional Council decided it wanted an LRT, your decision was final.

When this Council decided to ignore the results of public consultations in favour of paid consultants when naming the LRT, your decision was final.

Most municipalities across the country understand the value of meaningful public consultations.

On big issues like transit and infrastructure some Councils are even looking to give voters a choice through referenda on the municipal ballot.

I believe the Region should embrace not fear the role of taxpayers in making the LRT decision.

And the good news is that Liberal Infrastructure and Transportation Minister Glenn Murray agrees.

In fact, just last week Murray told Hamilton media that “it’s up to councillors, in consultation with citizens, to decide which form of transit will be best.” This is very good advice - and I urge Council to take it.
I'm here today to ask the Planning & Works Committee and by extension our Regional Council for three things:

- First, to delay making any further contractual agreements on the LRT until after October 27th.
- Second, to conduct a referendum on the future of rapid transit as part of the municipal ballot.
- And finally, to stop hiding behind self-imposed project deadlines in an effort to limit public input.

Regional government is under no pressure to execute a final agreement with senior levels of government or to select a construction consortium before the election.

It's time our Regional Council stopped hiding behind the illusion that meaningful public consultation has taken place.

It's time you stopped telling taxpayers that they had their say during the last election -- because, as I'm sure you recall, many of you were opposed to the LRT during the last campaign -- and then quickly changed your position after the votes were counted.

We've all heard time and again from members of this Council that: “we're not doing this for us, we're doing it for our children and grandchildren.”

We all want what's best for our kids – that's why we owe it to them to make responsible financial decisions.

Decisions that don't leave future generations tapped out when projects go over budget – and every LRT built in the past 40 years has.

I've always believed that leadership is about having the courage and conviction to stand by your decisions - and the confidence to explain how you made them.

On major community building decisions like the LRT it's important that residents are involved in making the final decision - whatever it might be.

Not long ago, Ken Seiling said “I don't believe a municipality that is in the regional family has the ability to do something that damages the other six municipalities and not have the region comment on it.”

Similarly, with just 237 days left of this Council term, I don't believe the Region should make a long-term rapid transit decision, without giving taxpayers in our Regional family the opportunity to have the final say.

I believe Waterloo Region's best days are ahead.

But to unlock our true potential we need to do better at communicating and engaging local residents when making critical decisions that impact our future.

After all, our destiny should not be a matter of chance; but a matter of choice. Choices that we all make together. Thank you.
March 4, 2014

Re: E-14-032/F-14-019, Stage 1 Light Rail Transit Project: Selection of a Design-Build-Finance-Operate-Maintain Consortium

Planning & Works Committee
Region of Waterloo

Members of Committee,

I am pleased to be here on behalf of TriTAG, the Tri-Cities Transport Action Group – nearly five years after our group first spoke here in support of moving forward with light rail, and a decade after planning for the project began. TriTAG believes that people in Waterloo Region should be able to get around on foot, by bike, and by transit easily and with dignity.

We believe that light rail transit is needed along the Region’s central corridor in order to support denser development and the resulting demand for transit. Just as importantly, it would serve as the spine of a reorganized bus network that facilitates travel across the corridor as well as parallel to the corridor.

TriTAG has expressed its concerns about public-private partnerships with private operations and maintenance. However, we believe that the Region has done its homework and learned from what has worked in other cities and what has not. It has put together a prudent P3 arrangement that manages risk for the public, while having correct incentives for the private partner. The ten-year operations and maintenance term will provide flexibility and competition when it comes time to extend the line and perhaps build new lines.

We firmly believe that the extension of the line to Cambridge should happen as soon as possible, perhaps beginning construction on the section east of Fairview Park Mall as soon as the first stage is operational. The preferred bid has come in below the estimates, and we would suggest that perhaps the first stage may make the second more affordable than earlier projections.
For us, the role of the LRT is to form part of an excellent whole-region transit network, including multi-modal hubs with GO trains in Kitchener and in Cambridge. Within the Region, GRT must embrace the iXpress network redesign and build up a network of frequent, rapid service that allows people to leave their cars and their transit schedules at home.

We ask you to approve the contract, so LRT can keep on time and on budget, and so we can finally move on from talking about the future to building for the future.

Regards,

Michael Druker,

on behalf of TriTAG
Overlooked innovative technological precedents tweak LRT plan to a great success — project delay needed

The design of Waterloo Region's approved light rail transit (LRT) plan is so close to having the potential to increasingly help make Waterloo Region a sustainability and cost-effectiveness exemplar to a world in great difficulty.

A few key overlooked innovative technological precedents could be easily integrated into the plan.

These initial “tweaks” to the LRT plan’s design -- and their collaborative continuation into the near future -- would create on-going positive quantum leaps towards an ultra sustainable and ultra cost-effective exemplar, first for our community and increasingly for the world.

Such an LRT plan would also dramatically cut capital and operating costs while greatly improving how our community benefits -- a truly synergistic advance.

Many know in their gut that the LRT plan could be much more innovative in keeping with the high Waterloo standard for technological projects.

Great innovative achievements are especially necessary now because worsening economic, social, and environmental degradations may have no limit.

This accelerating resource scarcity should signal to Regional officials -- and all governments around the world -- the need for doing more with less resources, the essence of synergistic advance.

In this synergistic direction, these plan-enhancing ITPs would at least result in: 1) inclusion of virtually all of stage one’s approved LRT plan (a few route problems altered) and most of stage two of necessity; 2) an estimated total capital cost (TCC) of $734.4M ; and 3) an operating cost much, much lower.

Now let’s see how the overlooked innovative technological precedents (ITPs) make possible these three key enhancements:

1. Replace LRT overhead power wire network with new Bombardier propulsion system

Just think of the tax savings if the overhead power wire (catenary) network -- 25% of our LRT plan’s total capital cost (TCC) -- could be replaced by a much less expensive but proven alternative.
Just think of the tax savings if the overhead power wire (catenary) network -- 25% of our LRT plan’s total capital cost (TCC) -- could be replaced by a much less expensive but proven alternative.

Fortuitously an overlooked innovative technological precedent fits the bill.

It is a proven-in-Europe battery & ultracapacitor hybrid propulsion system (circa 2008) that needs only 20 to 30 seconds to recharge at select stations every 1400m (CAF) or 2500m (Siemens).

And it would cost only about 3% of the LRT plan’s TCC and save at least 30% of electrical power operating costs. (Search ‘CAF Greentech video’ & ‘Siemens HES video’.)

A catenary-network-free Bombardier Flexity LRT vehicle will begin operations this year in China using a more advanced lithium-ion battery. (Search ‘Bombardier Nanjing pantograph’).

At least 3000m between recharges year-round should be attainable by adding Bombardier’s Mitrac ultracapacitor.

The inexpensive charging units — transformer, rectifier, short catenary section, … — at 15 of the stations would (very roughly) cost $5M total and initially be connected directly to the local utility grid.

Accelerating advances in cost-efficiency are occurring in sustainable energy technologies including solar cells, electrolyzers, hydrogen fuel cells, batteries, ultracapacitors, and electric motors.

Nano-materials (like graphene), biomimicry, etc. are playing a major role.

These advances will enable: 1) the LRT vehicle to travel increasingly farther between recharges; and 2) the main source of propulsion energy to increasingly move towards an LRT system that produces 100% of its electrical power from solar panels.

2. Add LRT commuter corridor (CC)

Imagine a 31 km LRT CC — direct, fast, safe, and inexpensive — built along the historic heavy rail route from a Northfield terminal to the Ainslie Terminal

It would sure please the many who have been saying they need the approved LRT plan to serve commuters better.

This suggested LRT CC is based on the Portland LRT system’s main ITP: the extremely successful MAX LRT’s (circa 1986) four LRT CCs that run mostly off-road.
Our project staff said the total capital cost rate would be the same to build a 2-track LRT corridor on a heavy rail route as on a road -- $43M/km ($819M ÷ 19 km).

But let’s adapt the capital costing of the Ottawa O-Train’s recently proposed 8 km catenary-network-free extension to our mostly off-road LRT CC. (Search 'Feasibility Study of O-Train Extension' )

The LRT CC’s total capital cost would then be a remarkable $338M for 31 km. ($11M/km) -- a combination of double track (9km off-road; 1 km on-road) and mostly single track (21km off-road with 2-track upgrade potential).

The $338M includes the cost of 16 dedicated LRT vehicles @$6.17M each, totaling $99M on an LRT CC with 8 min frequency potential.

While Ainslie Terminal would serve both peak and non-peak, Northfield terminal would serve only as a peak operations mode terminal. In non-peak operations mode, the end terminal would be Conestoga Mall.

3. Improve LRT intensification corridors (IC)

Most consequential for the LRT plan’s only stated goal of urban core intensification, Regional officials overlooked the main success-creating ITPs in their exemplar Portland LRT system’s Downtown Streetcar.

The LRT ICs — 7.6km in KW & 4.5km in Cambridge at a TCC of $391.4M — would consist of all on-road sections in the approved LRT plan (stage 1) and most on-road sections (with an extension) in the proposed stage 2 plan.

They would interconnect with the LRT CC — in KW at Caroline St. and Mill St. Stations, and in Cambridge at a station on Hespler Rd. near Avenue Rd.

The separation of LRT ICs from the LRT CC — an overlooked Portland LRT system innovative technological precedent (ITP)— would enable enhancing the design of the LRT ICs so they better intensify.

In this directionxxx, the LRT IC tracks would be installed in shared curb lanes where our buses run — an overlooked ITP based on Portland's acclaimed Downtown (intensifying) Streetcar LRT.

The existing bus stops would now be available — with only small capital expenditures — for the LRT vehicles to use during off-peak periods so as to better intensify business, residential, and combination buildings.
Faster moving LRT vehicles in the middle of the road — especially risky for left turns across the tracks — would be avoided.

Instead, a slower and safer LRT vehicle would move harmoniously along the curb lanes — another Portland ITP — with traffic light control in peak.

A unique way to save on the capital cost of LRT vehicles needed to better meet accelerating LRT CC peak demand would be to run all nine LRT IC vehicles on the LRT CC.

They would be replaced on the LRT IC just in peak by more flexible buses used in express mode -- ones made surplus by the LRT.

The valid complained about business inconvenience-cost would be completely avoided because all LRT IC streets could remain as they are now.

**The Future**

Subsequently LRT intensification corridors along Waterloo's King St. from Caroline Station to the Conestoga Mall Terminal, and Cambridge's Eagle St. from Hespler Rd. to the Eagle Station (by CP track) could be built.

In further LRT plan iterations — rapidly realized over these next critical years — new innovative technologies could be created &/or supported by a dynamic collaboration with UWaterloo, manufacturers, and even community members who are willing and able.

But please keep in mind that the survival of humanity and other complex planetary life at least depends on the willingness of individuals and organizations to do much more to enhance all technological projects towards at least being ultra sustainable and ultra cost-effective.

An innovative and wise Watetloo Region could help lead the way first by a delay to enhance the LRT plan -- in collaboration with GrandLinq and Bombardier.

**ADDENDUM -- Details incl. calculations for LRT corridors (reference only)**

**LRT Commuter Corridor (CC)**

- Greatly reduces LRT system capital and operating costs both directly & indirectly
  - e.g. enables great reduction in LRT track system capital costs -- more direct end to end route & much less costly per km
- Hallmark:
  - rapid-safe-direct-inclusive-frugal
- World class
  Portland MAX LRT -
  4 corridors
  - attracts very high ridership indicating need

- Northfield- Ainslie
  31
  km historic rail route

- Low
capital & oper
costs, high
effectiveness
  - Less travel time attracts more commuters

- Peak: all LRT vehicles on CC, freq 8 min

- Peak:
cross-connecting overlap
  exprs buses

- Peak:
i ntensification corr
  exprs buses
  - CN/CP track-use deal w. CN oper'ng at night
    - transfer
    yard s. of Grand R on MTO land

- Ottawa

  O-Train
  "
  LRT": 1 track, 8 min freq!

- O-T:
  Ion
  est.
  basis: # veh's & tot cap'tl cst
  - O-T:
    16km incl ext'n: 15 veh-2 extras=.81v/km

- O-T: 8km ext'n: $76M-
  $34M veh = $5.25M/km
  - track: rough-upgraded & new about=$
  - incl.
underpasses per km @ $4M/up

O-T: Ref: Feasibility Study of O-Train Extens'n

Ion LRT:
# of vehicles based on 15 min freq
- #veh: f8/f15 x .81v/km x 30.8km = 13.3+2extra
- Vehicle's cost: 16v x $6.17M/v = $99M

Rest of commuter corridor capital costs:

- 1 track: 20.5 km x $5.25M/km = $107.6M
- 2 track:
  - 9.3km x $10.5M/km = $98M
- 2 trk (on-road): 1km x $33.5M/km = $33.5M

Total capital cost for 30.8km = $338M

LRT Intensification Corridors (ICs)

- on approved pla
n's LRT road corridors in
  KW forming
  a Bypass Loop along
King, etc.
  linked to
LRT CC
  at Caroline & Mill Stations

- on key part of unapproved stage two plan's
  LRT road
corridors in
Cam forming
  a Spur
  Loop mostly
  along
Hespler Rd linking to
  LRT CC at station near CP overpass &
  turning back at the Pinebush Rd. mall’s
  I-express stop

- LRT veh's can turn back at CC links or go
  along it
Ion LRT veh now intensifies better because:

○ tracks share curb lane like buses [Portland]
  ○ stops & stations both active in off-peak
  ○

no mid-rd zoom-zoom IC noise: relaxes

○ safer speed for people/cars crossing tracks
  ○

all lanes now available: lessens congestion
  ○

more vibrant & innovative streetscapes

● Core Innovation Loops -- fewer Ions requ'd
  ○ Defines & interconnects Innovation Village
  ○ KW: Benton/Frederick & Willis Way
  ○
  Cam: "Pinebush" Malls & Cambridge Mall

● Better address public & business complaints
  ○ street design remains mostly same
    ○ turning on & off streets not disrupted
    ○ street parking not removed near retail stores
  ● Peak: flexible express buses use just stations
  ● Novel bi-directional much safer bicycle lane on:
    ○ KW's King St & Cambridge's Hesper Rd
  ● Extend 4km: Caroline to King to Conestoga Mall
    ○ serves WLU & high rises, & intensifies (for future)
  ● Off peak: now many route options serve ridership
● Approved LRT plan tot cap cost estimate guide
  ○ $819M for 19km Ainslie-Con Mall = $43M/km
  ○ minus 25% for catenary sys = $33.5M/km
  ○
  11.6 km 2-track on-road LRT ICs @ $33.5M/km = $388.6M
  ○
  0.5 km 1-track off-road LRT IC @$5.25M/km = $ 2.75M
  ○

Total capital cost for 12.6 km = $391.4M
  ○

includes 9 LRT vehicles, 8 min freq & 4.5km i Cambridge

Note: Does not include cost of LRT ICs' express buses because many buses would be made surplus by LRT system.