



# Staff Report

## Infrastructure & Public Works

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**Report To:** Committee of the Whole  
**Meeting Date:** April 3, 2017  
**Report Number:** CSPW.17.043  
**Subject:** Infrastructure Level of Service Workshop  
**Prepared by:** Michael Campbell, Construction Coordinator

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### A. Recommendations

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THAT Council receive Staff Report CSPW.17.043 entitled “Infrastructure Level of Service Workshop”;

AND THAT Council approve the award of the Infrastructure Level of Service Workshop to WSP Canada Inc. in the amount of \$30,000 excluding HST, consisting of \$23,200 upset cost estimate plus \$6,800 fee contingency.

### B. Overview

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The purpose of this Report is to receive Council approval to retain WSP Canada Inc. to conduct an Infrastructure Level of Service Workshop. The Workshop will consider the Level of Service to be provided for Town delivered services. The outcome of the Workshop will provide direction to Staff for the reconstruction of municipal infrastructure as well as for the installation of new works.

### C. Background

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During the award of the engineering services to WSP Canada Inc. (WSP) for the Elma and Alice Street Reconstruction Preliminary Engineering assignment, Council directed Staff to include a Workshop on the design options and engineering standards for the older areas of Thornbury. The resolution stated:

THAT with respect to Staff Report CSPW.16.144 entitled “Award of Preliminary Engineering Services for Elma St. S. and Alice St. W.”, Council direct staff to include a workshop on the design options and engineering standards for the older areas of Thornbury.

Staff have worked closely with WSP Canada Inc. to develop a terms of reference for the Workshop. With the volume of material that could be addressed in this Workshop it was felt that a full day would likely be required however split into two half day sessions. It is felt that a break of possibly a week would provide Council an opportunity to reflect on the first Workshop and

consider the focus of the second Workshop. As well, it will allow WSP and Staff to prepare for the second Workshop using what was learned from the first Workshop.

The focus of the Workshop will be to consider the Town delivered services within the road allowance and the Level of Service (LOS) to which the services will be provided when reconstructing existing streets within the Town. This will provide direction to Staff for the Elma and Alice Street Reconstruction Project in the short term and future reconstruction projects in the long term.

From the WSP Proposal:

“The workshop session will be project will be informative and entertaining. The session will be designed to cover a range of interrelated topics associated with the street design including both above and underground infrastructure. It will also be specifically crafted to ensure that the participants not only receive high value leading edge information, but also learn action-oriented tactics and methods that support community success and well-being that can be easily implemented.

The workshop will include a variety of engaging methods to facilitate dialog and learning for example: Videos; interpretive challenges; brainstorming; and ideation. Some of the preliminary topics that will be explored are:

- Interrelationships between street design and community success;
- Complete street, flex streets and road diets;
- Infrastructure investments, cost and lifecycle;
- Discussion as to why services are provided, agree on what is required and to what capacity, quality and reliability;
- Streets, economic development, placemaking and age friendly design”

WSP’s Proposal including the Workshop costing table and CV of the Workshop Facilitator, Robert Voigt, are included in Attachment 1.

## **D. Analysis**

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While the focus of the Workshop will be on the reconstruction of the older sections of Thornbury, the findings of the Workshop will influence and guide the approach to the reconstruction of infrastructure throughout the Town. Staff feel as well that the findings should be reflected in the Town’s Engineering Standards because it is appropriate that the construction of new infrastructure undertaken by Developers should be to the same criteria as that for the reconstruction of Works.

While the goal will be to have a common set of design and construction criteria, the nature of reconstruction, especially in older urban areas, gives rise to unusual circumstances and conflicts that often requires a project specific solution. The underlying goal will be though to maintain as much as reasonable to the Council-defined LOS.

Since establishing the LOS for services offered by the Town is a core Council function, Staff recommend that Council approve the award of the Infrastructure Level of Service Workshop to WSP Canada Inc. in the amount of \$30,000 excluding HST, consisting of \$23,200 upset cost estimate plus \$6,800 fee contingency.

## **E. The Blue Mountains' Strategic Plan**

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Goal #5 - Ensure that our infrastructure is sustainable.

## **F. Environmental Impacts**

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The Level of Service Workshop will ensure that impacts to natural environment are given consideration.

## **G. Financial Impact**

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The Thornbury Road Improvement Project (TRIP) was funded 50% Road Reserve and 25% each from the Water and Wastewater Asset Replacement Reserve Funds. The initial budget of \$200,000 was not fully utilized and Staff are recommending that this workshop be funded in the same manner from the remaining TRIP budget.

## **H. In consultation with**

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Sam Dinsmore, Deputy Treasurer/Manager of Budgets & Accounting  
Serena Wilgress, Manager of Purchasing

## **I. Attached**

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1. Level of Service Workshop Proposal, WSP Canada Inc., March 10, 2017

Respectfully submitted,

**Michael Campbell**

Michael Campbell, C.E.T.  
Construction Coordinator

**Reg Russwurm**

Reg Russwurm, MBA, P.Eng  
Director of Infrastructure and Public Works

For more information, please contact:

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P16-11133-42

March 10, 2017

Mr. Reg Russwurm, Director of Infrastructure & Public Works  
The Town of the Blue Mountains  
32 Mill Street, P.O. Box 310  
Thornbury, ON  
N0H 2P0

Re: Level of Service Workshop  
Scope of Work

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Dear Mr. Russwurm:

As per our meeting, WSP has prepared a scope of work for the Level of Service Workshop for road reconstruction within the Town of the Blue Mountains. Please provide any comments and we will modify the Scope. We will then prepare a cost estimate for the work as proposed.

Goal: To determine the level of service for reconstruction of local and collector streets within the Town.

Two ½ day workshops will be prepared to inform Council of their options with a digital workshop Touchstone Report highlighting the findings of each session (see sample pages from previous reports as attached in **Appendix A**). This is a summary report to allow Council to reflect on the session.

The first workshop will provide for a more general framework/background for the various subject areas that will be discussed. Topics that should require limited discussion will be discussed this day. Some example topics of first day discussions include: watermain replacement, sewer replacement and storm sewer replacement.

The second workshop will be more detailed in nature, informed by the content of the first workshop. This is expected to be more refined and address a few specific themes brought up during the first. For example, visual aspects of the streetscape and watermain sizing (fire flows) and storm sewer connections to basements.

The workshop session will be informative and entertaining. The session will be designed to cover a range of interrelated topics associated with street design including both above ground and underground infrastructure. It will also be specifically crafted to ensure that the participants not only receive high value leading edge information, but also learn action-oriented tactics and methods that support community success, and well-being that can be easily implemented.

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P16-11133-42  
March 10, 2017  
Mr. Reg Russwurm

The workshop will include a variety of engaging methods to facilitate dialog and learning, for example: videos; interactive challenges; brain storming; and ideation. Some of the preliminary topics that will be explored are:

- Interrelationships between street design and community success;
- Complete streets, flex streets, and road diets;
- Infrastructure investments, costs, and lifecycle;
- Discussion as to why services are provided, agree on what is required and to what capacity, quality and reliability;
- Streets, economic development, placemaking and age friendly design.

Technically, each component of street reconstruction will receive attention:

- Street lights – lighting level to match new development requirements, on hydro poles, none. Considering best practices and liability issues;
- Sidewalk – none, one side or both sides;
- Curb – concrete, asphalt, none;
- Sewers – repair sections, line, replace;
- Watermain – repair or replace. Determine sizing based on fire flow provision;
- Storm Sewer/Ditches – repair or replace, what design storm to size sewers for. Considering both quantity and quality control;
- Residential services – repair to home or property line, disconnect storm connections from sanitary service.

Lifecycle costing would play a key role in these discussions. Cost Estimates will be provided throughout the discussion and will be updated as decisions are made. O&M costs as well as lifecycle costs will be discussed.

Council should be aware of minimum requirements – the must do items (legislated) versus should do (best practices) versus nice to have items.

This is not intended to be a project specific workshop, the goal is to create a path forward for all future projects. The Elma and Alice Street project will be used as an example during discussions which allows for more accurate costing and for project specific graphics.

Review of various options to be included and encompassed in the above–reconstruction to be like for like, upgrade of current or down grade of current. It is noted that the level of service of the existing infrastructure is not consistent. Upon deciding on the path forward, discussion will be required as to where the funds are drawn for the improvements - adjacent properties through local improvement charge or the general taxpayers.



P16-11133-42  
March 10, 2017  
Mr. Reg Russwurm

A review of current requirements for new development should also be included and compared to that which is decided for reconstruction. What does the new development requirements mean for future asset management – is the proposed design affordable now and into the future. Are current expectations fair for developers if the Town decides a different path forward for reconstruction projects? The decisions made in this workshop will likely impact the Town's development standards.

There are a number of challenges a workshop like this presents when many interrelated subjects are proposed in a workshop. These are reviewed below as well as ways that we can address them to be most effective:

- The participants are not subject matter experts, however they are the decision makers and need to be given strategies and methods for assessing information. WSP will be focusing on that, as opposed to overly refined data about complex subjects within a variety of engineering specializations.
- The nature of all these items/issues/components is that they are interrelated and interconnected. Not all choices can be made independently of the others, as there are limits that are created with each new decision.
- There needs to be a discussion about the values and goals that are driving this from the “big picture”. This isn't a “visioning session”, but this needs to be explored in this type of discussion, because the subject is not just about technical differences and calculating options. An interactive activity will be utilized in the first workshop to address this.
- By having two sessions that allows the participants time to reflect on the material and provide questions that may be considered for the second session.
- An online tool will be utilized to discuss street design with workshop participants and make real-time changes based on their input. This is an interactive and fun process that can be worked on as teams or as an entire group. While this focusses on street improvements and the public realm, this will help educate them on a few critical things that go beyond that, specifically: creates understanding about design as an iterative process not a result; how to deal with inherent limitations and the results of decisions; and, how values and goals influence engineering, urban design, and planning decisions.

**Project Team:**

The workshop will be facilitated by Robert Voigt RPP MCIP and Kim Pilon, EIT. Expertise will be provided by Bob Kozial, P.Eng., an expert in Municipal Roads. CVs are provided attached in **Appendix B**.



P16-11133-42  
March 10, 2017  
Mr. Reg Russwurm

**Robert** is an award winning Registered Professional Planner, artist and writer practicing for over 20 years in governmental and private sector organizations in Canada and the US. He has a well-documented record of success with projects that have broken new ground and been recognized internationally. He specializes in healthy community design; placemaking strategies; mixed-use and community economic development and municipal ROI strategies; policy and by-law development and innovative stakeholder engagement. Robert is frequently invited as a keynote/guest speaker and to conduct workshops at international, national and provincial conferences. Robert is known for effectively bringing design thinking and Asset Based Community Driven approaches to planning & organizational development; problem solving methodologies founded in observation, storytelling, incremental ideation, pragmatism and creativity.

**Kim** Pilon, EIT, will co-facilitate the workshop. She has 6 years of post-graduation experience focusing on Municipal Engineering. She has completed several EAs with heavy community involvement. Kim will be an asset on this project as she is familiar with the area and is involved in several projects within the Town. Her knowledge of the Elma and Alice Street reconstruction project will aid in meaningful discussion throughout the project.

**Bob** Kozial, P.Eng., is a municipal road expert with more than 30 years of experience in roadway engineering, including Class Environmental Assessments; functional, preliminary, and detail design; public consultation; and environmental permitting across Canada and internationally. He is a leading specialist in functional, preliminary, and detail designs of on-road cycling facilities throughout the Greater Toronto Area. He is a past Chairman of the Transportation Association of Canada's (TAC) Geometric Design Standing Committee. His experience will be an asset to this project. Bob will act as an expert when required and will provide assistance with costing and street design recommendations.

#### **Workshop details:**

- Two - 3 ½ hours workshop sessions
- Maximum participants 20
- Intended audience: Council, Department representatives, and key guests as determined by Municipality
- Workshop booklets will be provided at the event
- Digital workshop Touchstone Reports highlighting the findings of the session will be provided one week after the event to all participants
- room requirements:
  - screen
  - projector
  - sound for projector/presentation
  - one table for facilitators for staging



P16-11133-42  
March 10, 2017  
Mr. Reg Russwurm

- one table for every 5-7 participants for group collaborative exercises
- one flip chart or each group table
- two flip charts for facilitators (or preferably a white board)
- note pads and pens for each participant
- water for participants and facilitators
- light refreshments for participants and facilitators (fruit and healthy snacks are preferred to avoid affecting peoples' energy levels from sugary foods)
- seating for everyone
- one additional "spare" rectangular table
- room setup:
  - screen set up at the front of the room
  - facilitators table, chairs, and flip charts at the front of the room
  - all participants should be seated at tables viewing the facilitators
  - to facilitate group work no one should be sitting behind podiums or Council tables, etc
  - group flip charts should be stored at the back of the room until they are needed

WSP has prepared a quote for the proposed workshop. Due to the nature of the materials to be presented, WSP proposed to work on a time and materials basis to an upset limit as presented attached in **Appendix C**.

Should you have any questions, please do not hesitate to contact the undersigned.

Yours truly,

WSP Canada Inc.

A handwritten signature in blue ink, appearing to read "Kim Pilon".

Kim Pilon, EIT  
Junior Engineer, Urban Infrastructure  
LM/KP.