

<b>TO:</b>	<b>CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON AUGUST 24, 2015</b>
<b>FROM:</b>	<b>EDWARD SOLDI, P.ENG. DIRECTOR, ROADS AND TRANSPORTATION</b>
<b>SUBJECT:</b>	<b>VETERANS MEMORIAL PARKWAY NOISE ATTENUATION WALL POST CONSTRUCTION MONITORING</b>

<b>RECOMMENDATION</b>
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That on the recommendation of the Director, Roads and Transportation, the following report **BE RECEIVED** for information.

<b>PREVIOUS REPORTS PERTINENT TO THIS MATTER</b>
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- Environment and Transportation Committee, April 28, 2003 – Environmental Study Report Airport Road Widening – Highway 401 to Oxford Street East
- Environment and Transportation Committee, January 15, 2007 – Veterans Memorial Parkway Noise Study
- Built and Natural Environment Committee, March 28, 2011 – Veterans Memorial Parkway Noise Study
- Built and Natural Environment Committee, May 16, 2011 – Public Participation Meeting - Veterans Memorial Parkway and Highbury Avenue Noise Study
- Built and Natural Environment Committee, September 26, 2011 – Veterans Memorial Parkway Noise Study
- Civic Works Committee, January 21, 2013 – Veterans Memorial Parkway Noise Study
- Civic Works Committee, April 22, 2013 – Veterans Memorial Parkway Noise Study
- Civic Works Committee, October 7, 2013 - Veterans Memorial Parkway Noise Study
- Civic Works Committee, January 6, 2014 - Veterans Memorial Parkway Noise Attenuation Wall
- Civic Works Committee, June 16, 2014 – Contract Award: Tender No. T14-62 VMP Noise Attenuation Wall

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

This purpose of this report is to provide Council with an update on the noise mitigation effects of the noise attenuation wall that was installed in 2014 on the west side of the Veterans Memorial Parkway (VMP) from Simpson Crescent to 120 m north of Trafalgar Street.

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At the October 22<sup>nd</sup> 2013 Council meeting, the following resolution was approved related to the VMP noise mitigation project:

- b) after the completion of the works noted in a), above, undertake a review of the noise levels in the area to ensure that they are below 60 decibels.*

**Context**

As reported earlier, the City retained Valcoustics Canada Ltd to undertake sound exposure monitoring in June 2012 in order to understand the noise concerns raised by the community. For the 2012 monitoring, readings were taken from within the rear yard outdoor amenity areas of four different homes. The four locations were chosen based on the location of interested property owners and their distribution along the corridor. The four locations were:

1. 151 Martinet Avenue, Unit 9
2. 217 Martinet Avenue, Unit 27
3. 35 Moreau Crescent
4. 248 Simpson Crescent

Development noise attenuation such as the existing noise berm are designed to keep daytime sound exposures in rear yard amenity areas to 60 dBA or less. In 2012, noise levels slightly in excess of 60 dBA were recorded at 151 Martinet Avenue and 248 Simpson Crescent. The noise levels at the other two locations (2,3) were below 60 dBA.

In order to improve noise levels in the outdoor amenity areas, Council approved the implementation of a noise wall along the top of the existing noise attenuation berm. In June of 2014, the tender submitted by Blue Sky Fence & Deck Inc. for the construction of the VMP Noise Attenuation Wall was accepted. The construction of the noise attenuation wall was initiated in the summer and completed in early October 2014.

**DISCUSSION**

With the noise wall in place, the City retained Valcoustics to perform a subsequent after construction sound exposure monitoring to measure the effects the noise wall had on the sound exposure levels previously recorded. The same four locations of the previous 2012 monitoring were utilized.

Consistent with the earlier monitoring, the equipment was placed in the rear yard amenity areas of the four locations. The monitoring was conducted on October 27, 28, 29, 30 & 31, 2014. Upon completion, the sound exposure measurements were analysed. The noise levels recorded were below 60 dBA at all four locations. The measured average daytime noise levels were as follows:

	<b>Location</b>	<b>Noise Levels (L<sub>eq</sub> Day)</b>
1	151 Martinet Avenue, Unit 9	59 dBA
2	217 Martinet Avenue, Unit 27	55 dBA
3	35 Moreau Crescent	52 to 53 dBA
4	248 Simpson Crescent	57 to 58 dBA

After comparing the recent monitoring with the noise levels measured in 2012 at the same locations, a reduction of sound exposure levels of up to 4 dBA was observed at the four representative testing locations distributed throughout the limits of the noise wall.

<b>CONCLUSION</b>
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The review of rear-yard noise levels along the VMP noise wall after the installation of the noise wall has confirmed that the new noise wall provides the required noise reduction in the adjacent residential backyard amenity areas. All measured average daytime noise levels are now within the City of London and MOE noise mitigation targets for land use planning.

The completion of the noise wall with the SimTek EcoStone Fence product has generated several compliments from the community for the aesthetics and the noise benefits. The SimTek provider suggests that the noise wall product is expected to require less maintenance over its life cycle compared to a wooden option.

The fence is a steel reinforced polyethylene product with fine crumb rubber fill to provide sound insulation. The manufacturer has provided a 30 year commercial warranty for the fence material. In order to maintain and prolong the functionality and structure integrity of the noise wall, the City has sent letters to the abutting land owners reminding them to keep the fence puncture free, as it may impact its warranty and its functionality.

**Acknowledgements:**

This report was prepared with assistance from Karl Grabowski, P.Eng., Transportation Design Engineer and Nathan Gonsalves, Engineering Intern, all of the Transportation Planning and Design Division.

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