

Environmental Assessments & Approvals

April 5, 2017

AEC 06-011

Lexis-bayview Developments 255 Duncan Mill Road Suite 202 North York, ON M3B 3H9

Attention: Warren Li, President

Re: Addendum Letter to Revised Environmental Impact Study (July 2015) West Part Half Lot 22, Concession 1 Town of Caledon, Region of Peel

Dear Mr. Li:

The property is located within the plan area of the Oak Ridges Moraine (ORM, ORMCP 2002). Azimuith's 2015 Revised Environmental Impact Study for the property defined above, identifies a number of Key Natural Heritage Features (KNHF) and Hydrologically Sensitive Features (HSF) on the property. In order to facilitate development on the subject lands, minor encroachment into a small portion of the identified KNHF/HSF and their associated Minimum Vegetation Protection Zone (MVPZ) is required (Figure 5). This includes minor encroachment through a Locally Significant Wetland (LSW) which is required for access to the proposed condominium site from existing stub/terminus of McKee Dr. Correspondence received from the Toronto and Region Conservation Authority (TRCA) dated January 13, 2016 indicated that they had concerns that the ecological and/or hydrologic connection could be impacted as a result of the proposed access road and suggested that compensation for encroachment as a possible mitigation strategy. TRCA also indicated that a Feature Based Water Balance (FBWBA) should be prepared to ensure that the wetland conditions and ecological function is maintained. The sections below will address these comments.

ECOLOGICAL FUNCTION

Azimuth's 2015 Environmental Impact Study (EIS) generally describes the ecological form and function of the portion of wetland that will be removed as a result of the



proposed development. Section 7.1.1 and Table 11 of Azimuth's 2015 report presents an assessment of potential direct and indirect impacts on the identified KNHF/HSF, including the abovementioned wetland feature that, in part, will need to be removed. Wildlife studies conducted on the property indicate that the wetland at this location does not provide any unique function, contain any unique features nor does it provide any significant wildlife habitat function. The potential for impact to this wetland feature from a hydrological perspective, as outlined in Table 11, was determined in largely through review of the water balance assessment completed by Terraprobe (2013).

FEATURE BASED WATER BALANCE

To date, a Scoped FBWBA has not been completed. The purpose of the FBWBA is to address potential impacts associated with the Stormwater Management (SWM) design and impact of the proposed road on the wetland feature and overall water balance. The flows from the developed site need to be assessed in order to ensure that the function of the wetland is maintained from an ecological perspective post-development. It is recognized that this is a requirement of the TRCA. Through consultation with TRCA, it has been determined that the Scoped FBWBA will be completed for this wetland during Detail Design.

EXISTING GROUNDWATER CONDITIONS

The Results of the Ground Water Monitoring Program produced by Terraprobe Inc.(November, 2016) report describes the ground water work program that has been completed to date, discusses ground water elevations, gradients and flow directions, and provides discussion and analysis of the seasonal variations in the ground water, surface water levels and flow conditions in the on-site water features. Within this report, it is concluded that the wetlands on the property are supported by surface drainage with only minor ground water input at the southeast portion of the property (Terraprobe, 2016). This information will be utilized during the completion of the Scoped FBWBA. The results of the FBWBA will validate any assumptions that were made within the reports completed during the Official Plan Amendment (OPA), Draft Plan of Subdivision and Zoning application stage of approvals.

STORM WATER MANAGEMENT AND DESIGN

The Functional Servicing and Stormwater Management Report produced by Masongsong Associates Engineering Limited dated January 2017 and the Storm Servicing Alternative Addendum dated January 2017 outlines the existing and proposed infrastructure for the property including a second alternative for the storm servicing of the proposed residential site plan development which includes a porous paver driveway entrance and reintroduction of surface water into the LSW through a controlled storm water system. The



results of the Scoped FBWBA will guide any necessary changes to the SWM and/or road design in order to maintain the current form and function of the wetland. The current SWM and road design currently have enough flexibility to adapt to any required changes at the detailed design stage.

MONITORING PROGRAM

It is recommended that a pre and post-monitoring program is developed in order to assess the current state of the wetland and to ensure that the wetland hydrological conditions are maintained post-development. TRCA has developed a Wetland Water Balance Monitoring Protocol (TRCA 2016), that can provide guidance in the development of a monitoring plan. As per Terraprobe's 2016 report, groundwater levels were measured in selected shallow and deep wells from 2007 to 2013. Details of the monitoring program completed to date can be found within Terraprobe's report (Terraprobe 2016). The purpose of the monitoring is to ensure that the function of the wetland is maintained postdevelopment. Based on this information, we would recommend a monitoring program to include:

- Installation of a nested piezometer within wetland 'lobe' in proximity to location of proposed roadway (*i.e.* BH/MW3 refer to Figure 2 of Terraprobe's 2016 report);
- Pre and post-development monitoring of nested piezometer at this location;
- Attend the site during spring freshet to assess the wetland feature for standing water. This search should be restricted to the wetland feature located within the southern portion of the property;
- A staff gauge should be installed within the wetland where standing water is observed;
- Staff gauges should be monitored pre-development and throughout the duration of construction and post-construction; and
- Any notable changes of ground/surface water levels should result in a reevaluation of existing LID techniques.

The specific details of the monitoring plan should be developed through consultation with TRCA.

COMPENSATION PLANTINGS

In order to compensate for the proposed minor encroachments into identified KNHF/HSF and their associated MVPZ, compensation in the form of an Enhancement Planting Plan is be required. The detailed Enhancement Planting Plan including details of planting



techniques, timing, species composition and maintenance will be prepared at detail design stage. It is proposed that a compensation ratio of 2:1 for encroachment into the KNHF/HSF and that a compensation ratio of 1:1 is provided for encroachment into the MVPZ. Based on this recommended compensation ratio, it is proposed that 0.59 hectares (ha) is planted within areas of the property generally void of tree/shrub cover as depicted on Figure 6. Please note that the proposed compensation areas are for all of the proposed encroachments into the KNHF/HSF and their associated MVPZ related to the entire development proposal (not just for the wetland feature). The proposed enhancement plantings will increase the overall tree/shrub cover on the property while providing a connection between KNHF/HSF both on and off-site.

CLOSURE

We trust the information provided is sufficient to address the abovementioned comments outlined by TRCA as discussed in their January 2016 review Comments. We request that the information outlined herein be considered in conjunction with reports and background information submitted to date.

Should you have any questions or require additional details, please feel free to contact the undersigned.

Yours truly, AZIMUTH ENVIRONMENTAL CONSULTING, INC.

Lisa Moran, B.Sc.Er

Terrestrial Ecologist

Attach:

cc: Adam Lennie, Oskar Group



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Property Boundary Watercourse - Hydrologically Sensitive Feature (HSE)	& Key Natural Heritage Feature (KNHF)	Minimum Vegetation Protection Zone (MVPZ) (white)	-AZIMUTH ENVIRONMENTAL CONSULTING, INC.		
 (Fish Habitat) MNR Evaluated Wetland (Locally Significant) - HSF Significant Woodland - KNHF 	a ney hatara nentage reature (ninn)	Proposed Encroachment into KNHF/HSF Proposed Encroachment into MVPZ	Consolidated Plan		
Significant Valley Land - KNHF Butternut with 25m Buffer (END) Recommended EPA1 Boundary W:106-011 Caledon East EIS\Drafting\dwg\06-011 2012.dwg			Date Issued:February 2017Created By:JLMProject No.06-011Reference:First Base Solutions	Caledon East EIS Pt W1/2 Lot 22, Con. 1 Town of Caledon	Figure No.



Property Boundary
 Watercourse - Hydrologically Sensitive Feature (HSF) & Key Natural Heritage Feature (KNHF) (Fish Habitat)

Minimum Vegetation Protection Zone (MVPZ) (white)

Potentially Developable Area

Proposed Encroachment into KNHF/HSF

Proposed Encroachment into MVPZ

Proposed Compensation Planting Area

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Recommended EPA1 Boundary

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Propo

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Created By:	JLM
Project No.	06-011
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MUTH ENVIRONMENTAL CONSULTING, INC.				
osed Compensation Areas				
Caledon East EIS	Figure No.			
Pt W1/2 Lot 22, Con. 1 Town of Caledon	6			