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Municipal Engineering Services

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April 28, 2008

Town of Halton Hills 1 Halton Hills Drive Georgetown, ON L7G 5G2

Attention:

Mr. Curtis Marshall

Dear Sir:

Re:

Second Addendum – Subwatershed Impact Study
Development Area C, 401 Corridor Integrated Planning Area
Town of Halton Hills

Our Project No. 06157

In response to a letter from Conservation Halton dated November 9, 2007 and an email dated April 2, 2008, we have prepared a second letter addendum to the Subwatershed Impact Study for Development Area C. To address the comments/issues raised by Conservation Halton, the following changes have been made:

Terrestrial Ecology

Regionally rare plant species

The following statement should be added to the end of Section 2.3.2 of the main report:

"A regionally rare plant species, *Cerotophyllum demersum*, is located in the area proposed for the stormwater management facility. It is protected s Significant Wildlife Habitat under the Provincial Policy Statement (2005). At the time of detailed design, this species will be further assessed as well as the ability to transplant it to a suitable location either on or off-site."

 Required setbacks of 7.5 m lot line setback from top of bank and an additional 7.5 m internal development setback

The 15 m setback has been indicated on Figure 5 of the Geomorphic, Aquatic, & Terrestrial Habitat Assessment (Geomorphic Solutions, January 2008).

The section under "Wetlands" on page 29 of the Geomorphic, Aquatic, & Terrestrial Habitat Assessment (Geomorphic Solutions, January 2008) should be adjusted to state:

"The wetlands associated with Middle Sixteen Mile Creek at the corner of Steeles Avenue and Fifth Line are also protected as Significant Wildlife Habitat under the Provincial Policy Statement (2005) and therefore no development or site alteration is permitted unless it could be demonstrated that no negative impact would result. There are additional wetlands identified within the development area but as these are not associated with Sixteen Mile Creek, they can be removed as determined through the Subwatershed study process.

.../2



Town of Halton Hills Mr. Curtis Marshall April 28, 2008 Page 2

> Compensation for the removal of these wetlands would be completed in the valley lands as a means of enhancing the natural environment. Setbacks for the valley lands consists of a 7.5 m lot line setback from top of bank and an additional 7.5 m internal development setback (for a total of 15 m setback from top of bank)."

> The section under "Wetlands" on page 30 of the Geomorphic, Aquatic, & Terrestrial Habitat Assessment (Geomorphic Solutions, January 2008) should be adjusted to state:

- "No development or site alteration in the wetlands at the corner of Steeles Avenue and Fifth Line.
- o Removal of other wetlands within the development area is permitted with compensation provided within the valley lands.
- Maintain a 7.5 m lot line setback from top of bank of the valley and an additional 7.5 m internal development setback (for a total of 15 m setback from top of bank)."

Planting estimate

A revised planting cost estimate has been provided to Conservation Halton in an email dated April 10, 2008. I have attached a copy of the estimate to this letter.

In order to ensure the current information is referenced, please keep this addendum with the most recent copy of the report dated September 2007.

Respectfully submitted,

SERNAS ASSOCIATES

Sabrina Fischer, P.Eng.

Water Resources Engineer

Ken Chow, P.Eng.

Principal, Manager - Water Resources

Attach.

Conservation Halton, Attn: Ms. Jennifer Lawrence (3 copies) C.C.

Ontario Ministry of Transportation, Attn: Mr. Greg Roszler (1 copy)

Region of Halton, Attn: Ms. Shelley Partridge (1 copy)

Higgins Development Partners, Attn: Mr. Delis Lus (2 copies)

Fabian Papa and Partners Inc., Attn: Mr. Fabian Papa (1 copy)

Landscape Ontario, Attn: Mr. Tony DiGiovanni (1 copy) Sernas Associates, Attn: Mr. Glen Easton (1 copy)

Sernas Associates, Attn: Mr. Al Brown (1 copy)

Geomorphic Solutions, Attn: Dr. Paul Villard (1 copy)

Valleyland (MAM2-2 area = 26850 sq. m, vegetated at 50% treatment ratio)	13425 sq. m	@	6 per 100 sq. m	=	101 tree seedlings	@	\$		each =	\$	50
					101 small tree whips	_	\$		each =	\$	2,5
					101 large tree whips	@	\$		each =	\$	7,5
					101 caliper trees	@	\$		each =	Ş	25,1
		@	30 per 100 sq. m	=	2014 shrubs	@	\$	30.00	each =	\$	60,4
				_		_		_		\$	96,
7.5m lot line setback (approx.400m long, as calculated along veg units 3 and 4)	3000 sq. m	@	12 per 100 sq. m	=	45 tree seedlings	@	\$	5.00	each =	\$	
					45 small tree whips	@	\$	25.00	each =	\$	1,
					45 large tree whips	@	\$	75.00	each =	\$	3,
					45 caliper trees	@	\$	250.00	each =	\$	11,
		@	60 per 100 sq. m	=	900 shrubs	@	\$	30.00	each =	\$	27,
										\$	42,
7.5m internal development setback (same,	3000 sq. m	@	12 per 100 sq. m	=	45 tree seedlings	@	\$	5.00	each =	\$	
cost to be carried by developer of lots)	2222 24	•	12 pc/ 100 sq. 111		45 small tree whips	@	Ś		each =	Š	1,
					45 large tree whips	@	Ś		each =	Ś	3,
					45 caliper trees	@	Ś	250.00		Š	11,
		@	60 per 100 sq. m	=	900 shrubs	@	Ś		each =	Š	27,
		•	p		200 0	_	~	23,00		5	42,

Grand Total \$ 182,107

Assumptions:

- 1. in absence of accurate valleyland delineation on plans, the extent of Sixteen Mile Creek Valleyland has been approximated by extent of Meadow Marsh and Cattail Marsh vegetation units as described by Dougan & Associates in July, 2007 letter report
- 2. valley 'top of bank' has been approximated by western edge of Meadow Marsh and Cattail Marsh vegetation units
- 3. only 50% of Meadow Marsh is suitable for planting due to large number of Marsh and Shallow Aquatic inclusions in vegetation unit
- 4. all planting densities are as per Conservation Halton's "Guidelines for Stormwater Management Pond and Creek Realignment Planting Plans and Tree Preservation Plans" (12 trees per 100 sq. m for setback areas, 6 trees per 100 sq. m for valleyland, 5:1 shrub to tree ratio throughout)
- 5. in order to provide a variety of sizes of tree species, trees are to be specified as equal quantities of seedlings (2yr), small whips (1m), large whips (2m) and caliper (35mm)
- 6. all estimates include the supply and installation of plant material and associated supplies, as well as maintenance and monitoring for 2 year warranty period