Hensel Design Group INC.

Advancing Sustainable Development Solutions

January 19, 2018

Hon. Paul Bonwick, P.C.
Stonebrook Development
Sent via Email

Dear Mr. Bonwick:

**RE: Addendum to Scoped Environmental Impact Study for Proposed Stonebrook Development, Markdale, Ontario**

Further to our engagement of January 12, 2018, Hensel Design Group Inc. (HDG) has completed an addendum to the Scoped Environmental Impact Study (EIS) for the proposed Stonebrook Development to address the presence/absence of Species At Risk (SAR) on the Phase 2 and 3 lands.

## 1. Background Data Search

As part of the background data review, HDG staff conducted a thorough search for information on natural heritage and ecologically significant features located on or adjacent to the subject property. Sources of background information included:

- Natural Heritage Information Centre (2018)
- Breeding Bird Atlas of Ontario (2018)

### 1.1 Natural Heritage Information Centre

The Natural Heritage Information Centre (NHIC) compiles, maintains and distributes information on natural species, plant communities and spaces of conservation concern in Ontario. The NHIC provides a searchable database for occurrences of rare species, rare vegetation communities, Living Legacy Sites, Life or Earth Science Areas of Natural and Scientific Interest (ANSIs), and specialized habitats.

#### 1.1.1 Relevance to the Subject Lands

HDG conducted a search of the NHIC database on January 18, 2018. The search revealed the presence of one (1) element occurrences for species recorded within the two 1km squares that cover the subject lands. Species with an NHIC S-Rank of S1, S2 or S3 are considered rare in Ontario (NHIC 2010). Species listed under the ***Endangered Species Act*** (Province of Concern) are designated and regulated as either extirpated (EXT), endangered (END), threatened (THR) or of Special Concern (SC).

The NHIC database identified one Restricted Species (EO ID 16509). It is understood that the Restricted Species is a record for a sensitive turtle species from 1975. There is no known turtle habitat for overwintering or nesting within the subject lands.

### 1.2 Breeding Bird Atlas of Ontario

Given the timing of the recent site visit (January 18, 2018), the Breeding Bird Atlas of Ontario was consulted to determine if there are any records that exist for SAR bird species on or adjacent to the subject lands. The subject lands are located in atlas square 17NK20, a 10km x 10km grid. A search of the records for atlas square 17NK20 revealed records for Eastern Meadowlark (*Sturnella magna*), Bobolink (*Dolichonyx oryzivorus*), Whip-poor-will (*Antrostomus vociferous*), Chimney Swift (*Chaetura pelagica*) and Barn Swallow (*Hirundo rustica*), within the 10km x 10km grid. These birds are all listed as Threatened under the *Endangered Species* Act however given the manicured landscape (mown land) and existing conditions of both the Phase 2 and Phase 3 lands, habitat for these species do not exist within the subject lands.

## 2. Existing Conditions

### 2.1 Phase 2 Lands

The Phase 2 lands are located north east of the Phase 1 lands (See Figure 1). The lands are currently used as manicured lands adjacent to the first fairway of the Markdale Golf and Country Club. Other adjacent land uses include agricultural and residential uses.

Vegetation on the Phase 2 lands includes mown grass and hedgerow and small (2-3 trees each) scatted copses of immature trees. Tree species represented within the subject lands are White Cedar, Norway Spruce, White Pine, Basswood, Locust, Black Cherry, White Ash and Sugar Maple. The understory of trees within the hedgerow was dominated by Hawthorn and Buckthorn.

### 2.2 Phase 3 Lands

The lands for Phase 3 are located on a vacant parcel of land currently surrounded by residential uses (See Figure 1). These lands have previous use as open space and as a youth soccer field. As such the vegetation includes mown grass and a few trees scattered within the subject lands and along the rear yards of the adjacent residential lands. Vegetation on the Phase 3 lands includes mown grass and trees located along the rear yards of abutting lots. Three small copses of trees were noted within the subject land parcel. None of the species observed were significant. Trees identified within the Phase 3 area included Basswood, Black Walnut, Sugar Maple, Austrian Pine, Green Ash, Poplar Spp, Manitoba Maple, Scots Pine and Norway Spruce. Perimeter trees and shrubs on the abutting lots line the boundary of the subject lands and are mostly representative of non-native, hybrid landscape plantings.

## 3. Field Investigations

A site visit was conducted on January 18, 2018 to determine the presence/absence of SAR. Given the timing of the visit the investigations included a search for Butternut trees (*Juglans cinerea*) and Bat Cavity Trees (BCT).

The Draft Ecoregion 6E Criterion Schedule indicates that deciduous and mixed forests having a density of "wildlife trees" having diameter at breast height (dbh) greater than 25cm exceeding 10/ha are candidates for consideration as bat habitat- specifically Maternity Colony Habitat. Bat Cavity Trees (BCTs). A BCT was defined as a tree having dbh >25cm that provided holes clearly leading to areas of cavity formation internal to the tree. Such areas often originate from limb shedding/knot holes and through excavation by woodpeckers. For knot holes or woodpecker holes to qualify as bat cavities they had to advance into an area of rotted heartwood such that they provided a cavity within the tree large enough to accommodate 5 bats or more offering them protection from the elements (i.e. simple knot or woodpecker holes do not qualify). Cavities had to be located more than 3m above ground to qualify as bat cavities. Trees with dbh > 25cm having patches of loose bark more than 3m above ground providing cover for groups of bats were also considered as a BCT.

## 4. Development Proposal

The current development proposal for the subject lands includes the development of townhouse units on both the Phase 2 (24 units) and Phase 3 (54 units) lands.

## 5. Impacts Assessment

The following represents a summary of the potential impacts assessed as related to implementation of the development proposal within or adjacent to the noted on-site natural heritage features. The assessment is based on the use of available information garnered from the background information review and field reconnaissance of any natural heritage features on or adjacent to the subject lands.

### 5.1 Significant Wetlands, Significant Coastal Wetlands and Other Wetlands

There are no identified unevaluated wetlands or Provincially Significant Wetlands (PSWs) on or adjacent to the subject lands.

### 5.2 Significant Wildlife Habitat

The subject lands do not contain any significant wildlife habitat.

### 5.3 Significant Woodlands

There are no Woodlands on the subject lands.

### 5.4 Significant Valleylands

There are no significant valleylands to be considered.

### 5.5 Threatened/Evaluated Species and Habitats (SAR)

A search of the NHIC database did not identify any significant species, rare or specialized habitats on the subject lands. Although the NHIC does contain a record of a Restricted Species, it is understood that this is a sensitive turtle species which is not listed as as either extirpated (EXT), endangered (END), threatened (THR) or of Special Concern (SC). A search of the Breeding Bird Atlas of Ontario found that 5 species of birds, all listed as Threatened, have been recorded within the 10km x 10km grid which includes the subject lands. Habitat for these species does not exist on the subject lands. No Butternut trees were observed within the Phases 2 and 3 subject lands.

### 5.6 Fish Habitat

There is no fish habitat on the subject lands.

## 6. General Recommendations and Mitigations

The general mitigation measures and recommendations described herein are provided to further ensure that development of the subject lands proceeds in an environmentally and socially responsible manner with the aim of reducing impacts on the functions and integrity of the study area's natural heritage features, during the construction process.

1. That the recommendations and mitigations identified below become Conditions of Approval to be addressed as a part of the detailed Engineering and Landscape submissions to support the final design and future submissions.

2. The Grading/Drainage Plan must designate specific locations for stockpiling of soils and other materials including snow (for both during and after construction) to reduce runoff potential;

3. A spill-prevention program should be developed, as well as ensuring that vehicle re-fueling occurs off-site;

4. Sediment fencing should be erected on the down slope of all fill material to prevent sediment transport, until full vegetation cover has been achieved on all disturbed areas. The fences should subsequently be monitored on a scheduled basis during construction, and checked both before and after all precipitation events to ensure stability;

5. Barrier fencing should be placed at the property line or at the drip-line of trees on adjacent lands. Avoid inadvertent root compaction. In the event that roots or branches of trees to be protected are inadvertently damaged during construction, they should be clean cut as soon as possible. Exposed roots should then be covered with topsoil and mulched under the guidance of a biologist, arborist or landscape architect.

6. Areas that are to be cleared for development but are planned to later undergo landscape plantings should implement plans that includes native seed/planting materials wherever appropriate.

7. Organic landscaping methods should be used to minimize impacts to the plant community and reduce the chance of non-native or invasive species from establishing.

8. When possible, in order to reduce the potential for negative impacts on the surrounding area's breeding birds, it is recommended that construction and its associated noises be minimized between 5:00 a.m. and 10:00 a.m. from late May to late July. These time windows are the peak calling and breeding periods for the majority of Ontario's breeding birds; a bird's ability to sing and be heard by potential mates and defend against rivals is imperative to their reproductive health and success. The *Federal Migratory Bird Convention Act* and its regulations prohibit the damage or destruction of a migratory bird, its nest and eggs. This Act is currently under review to allow for 'incidental take' during development, however currently destroying nests during the course of construction may result in charges.

## 7. Conclusion

***Based on the information known from the site we conclude that the proposed development of the Phase 2 and Phase 3 Stonebrook Development lands is feasible from a natural heritage perspective, in so long as the recommendations and mitigations identified herein are implemented.***

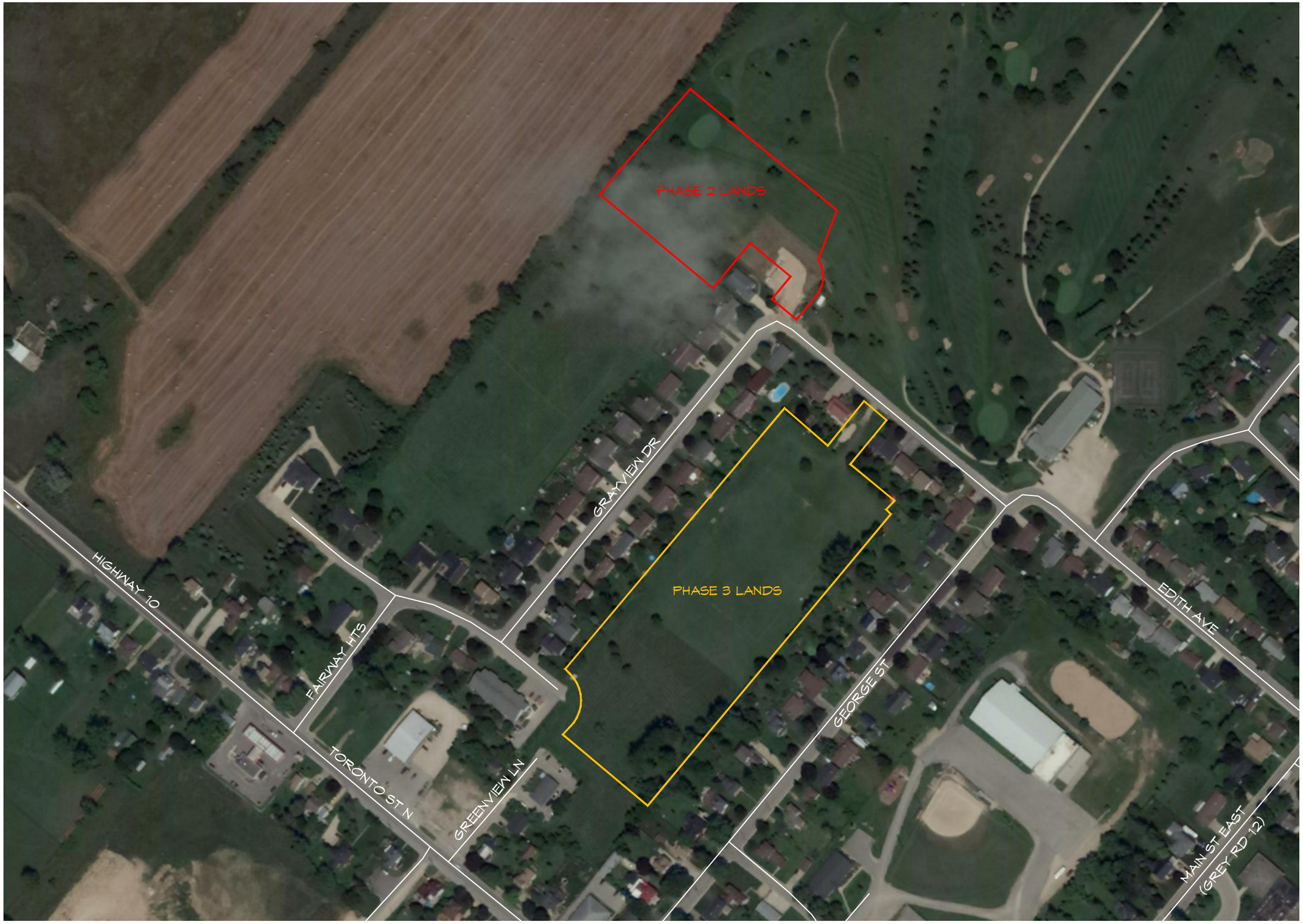
If you require additional information regarding this submission, please do not hesitate to contact us.

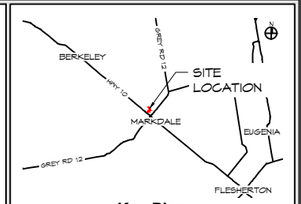
Sincerely,

**Hensel Design Group Inc.**

Michael J. Hensel, OALA, CSLA
Senior Development Consultant

Enclosures: Figure 1




**Key Plan** *(n.t.s.)*

**Legend**

ROADS

PHASE 2 LANDS

PHASE 3 LANDS

N

0 10 20 40 60 80 100 m

1 : 2500

| No. | Revision | Date | Init |
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THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND REPORT ANY ERRORS OR OMISSIONS TO THE CONSULTANT BEFORE COMMENCING OR PROCEEDING WITH ANY WORK.

DO NOT SCALE THIS DRAWING.

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PROJECT

STONEBROOK DEVELOPMENT
Markdale, Ontario

TITLE

SITE LOCATION

SEAL

SEAL — ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS — MICHAEL J. HENSEL — OALA — MEMBER

| | |
|---|---|
| Scale: | 1:2,500 |
| Date: | January 2018 |
| CAD File: | HDG_SB_Fig1 |
| Drawn by: | C.M. |
| Checked by: | M.H. |
| Job No.: | - |

Drawing No.

Fig 1

Date Plotted: January 21, 2018 File Location: Q:\Projects\HDG\Stonebrook\ACAD\DWG\HDG\HDG_SB_Fig1.dwg