

October 18, 2017

Ms. Kristen Kapelanski
Planning Manager
Department of Planning &
Economic Development
City of Rochester Hills
1000 Rochester Hills Drive
Rochester Hills, MI 48309

**Subject: File No. 17-013 - Crestwyck Estates PUD;
Wetland Use Permit Review #3;
Plans received by the City of Rochester Hills on
October 10, 2017**

Applicant: M2J1, LLC

Dear Ms. Kapelanski:

The above referenced project proposes to construct twelve residential buildings on four parcels comprising 4.64 acres as a Planned Unit Development (PUD). The site is located along the east side of John R Road, west of Gravel Ridge Drive, north of Hamlin Road, and south of School Road. The site includes two wetland areas and a watercourse regulated by the City of Rochester Hills and likely the Michigan Department of Environmental Quality (DEQ).

ASTI has reviewed the site plans received by the City on October 10, 2017 (Current Plans) for conformance to the Wetland and Watercourse Protection Ordinance and the Natural Features Setback Ordinance and offers the following comments for your consideration. Please note that ASTI has not reviewed a draft PUD agreement between the applicant and the City prior to publication of this wetland review.

COMMENTS

1. **Applicability of Chapter (§126-500).** The Wetland and Watercourse Protection Ordinance is applicable to the subject site because the subject site is not included within a site plan which has received final approval, or a preliminary subdivision plat which received approval prior to January 17, 1990, which approval remains in effect and in good standing and the proposed activity has not been previously authorized.

Wetland and Watercourse Determinations (§126-531). This Section lists specific requirements for completion of a Wetland and Watercourse Boundary Determination.

- a. This review has been undertaken in the context of a Wetland and Watercourse

Boundary Determination previously completed by the applicant's wetland consultant. The applicant's wetland consultant (Atwell, LLC) and the date of the wetland delineation (January 30, 2017) are now shown on Sheet C-02 of the Current Plans, which is to ASTI's satisfaction. ASTI inspected the on-site wetland delineation flagging on May 1, 2017. The Current Plans indicate that two wetland areas (Wetland A and Wetland B) are present on-site.

Based on ASTI's inspection of the original wetland flagging on-site, ASTI agreed with the wetland delineation for Wetland B and its representation on previous plans; ASTI remains in agreement with the depiction of Wetland B on the Current Plans. However, ASTI observed two additional wetland areas associated with Wetland A and added flagging accordingly. One additional area was in the northwest portion of Wetland A and the other area of additional wetland was found in the southeast portion. Furthermore, ASTI observed a watercourse generally flowing north to south through Wetland A, which was not shown on previous plans. This watercourse is an unnamed tributary to the Honeywell Ditch located to the south and exhibited a defined channel bed and banks and was flowing on the day of the site inspection. Review of current and historical aerial photography indicates this watercourse has persisted since at least the early 1970s. The applicant has made corrections identified in ASTI's field inspection and associated Wetland Use Permit Review Letter #1, and the Current Plans now show all wetland and watercourse boundaries to ASTI's satisfaction.

Wetland A is regulated by the City and likely the DEQ because it is directly connected to the unnamed tributary of the Honeywell Ditch that flows through it; the unnamed tributary to the Honeywell Drain meets the definition of a stream under Part 301. Wetland B is regulated by the City and likely the DEQ because it is within 500 feet of the unnamed tributary to the Honeywell Ditch flowing through Wetland A. Additionally, both Wetland A and B are regulated by the City and likely the DEQ because both are within 500 feet of the Honeywell Ditch to the south, which also meets the definition of a stream under Part 301.

The applicant should be advised that wetland delineations are only considered valid by the DEQ and the City for a period of three years. Please note the DEQ has final authority on the extent and jurisdiction of all State-regulated wetland, lakes, and streams in Michigan.

b. City Wetland Quality Assessments

Wetland A

Wetland A is young to moderately-aged forested wetland generally located along the unnamed tributary of the Honeywell Ditch in the east central portion of the site. Dominant vegetation observed within Wetland A included the native species of silver maple (*Acer saccharinum*), American elm (*Ulmus americana*), green ash (*Fraxinus*

pennsylvanica), and cottonwood (*Populus deltoides*). Tree cover was robust and individuals ranged in size of approximately 3 inches diameter to 25 inches in diameter. Woody understory vegetation included gray dogwood (*Cornus racemosa*), green ash saplings, silver maple saplings, and cottonwood saplings. The invasive species of glossy buckthorn (*Frangula alnus*) was also observed in sparse amounts in the understory. Herbaceous cover was sparse at the time of inspection and included skunk cabbage (*Symplocarpus foetidus*), buttercup (*Ranunculus hispidus*), and sensitive fern (*Onoclea sensibilis*). The unnamed tributary to the Honeywell Ditch exhibited very sparse to no vegetation within its channel and was flowing on the day of the site inspection. The bed of this watercourse was generally sandy with intermittent amounts of gravel and coarse sands. No obvious signs of detrimental contaminants were observed within Wetland A or its associated watercourse. Overall, vegetation within Wetland A was dominated by native species with sparse invasive species cover throughout this complex. The observed tree, shrub, and herbaceous layers within Wetland A, along with the unnamed tributary of the Honeywell Ditch, have the potential to provide a locally diverse wildlife habitat. This wetland and watercourse extends off-site to the north onto the adjoining property and was observed to be actively detaining and draining water on the day of the site inspection. Soils were sandy and appeared to be native. Wetland A appears to be a natural and generally undisturbed feature. Based on these factors, it is ASTI's opinion that Wetland A and its associated watercourse are of high quality and function and should be considered a valuable natural resource to the City.

Wetland B

Wetland B is a scrub/shrub to emergent wetland located in the west central portion of the site. Dominant vegetation observed within this wetland included Phragmites (*Phragmites australis*), box elder saplings (*Acer negundo*), cottonwood saplings, green ash saplings, and glossy buckthorn. Wetland B is partially within an overhead power utility easement and may undergo periodic disturbances from vegetation control maintenance. Wetland B is small (0.18 acres in size) and isolated. Invasive vegetation, specifically Phragmites and glossy buckthorn, comprise approximately 50% of the total vegetation. Although some standing water was observed in scattered areas within Wetland B, no significant flood reducing or water quality improvement properties were observed or presumed active. Due to the abundance of invasive vegetation within Wetland B and because it is small and isolated, it has little potential to offer any significant wildlife habitat. Based on these factors, it is ASTI's opinion that Wetland B is of little functional value, of low quality, and should not be considered a valuable natural resource to the City.

2. **Use Permit Required (§126-561).** This Section establishes general parameters for activity requiring permits, as well as limitations on nonconforming activity. This review of the Current Plans has been undertaken in the context of those general parameters, as well as the specific requirements listed below.

- a. All impacts to City- and DEQ-regulated wetlands are now calculated, shown, and stated in square feet on the Current Plans to ASTI's satisfaction.
- b. The Current Plans show that 7,956 square feet of permanent impacts will result to Wetland B from the construction of Units 3, 4, 5, 6, 10, and the proposed Crestwyck Lane. Although the entirety of Wetland B will be impacted by the proposed development, Wetland B is of low quality and function. Therefore, ASTI recommends that the City allow for the impacts to Wetland B as proposed on the Current Plans. All impacts to Wetland B are shown in square feet on the Current Plans to ASTI's satisfaction.
- c. The Current Plans show that 3,925 square feet of permanent impacts will result to Wetland A from the construction of a portion of Crestwyck Lane, the proposed detention pond, and Lot 12; approximately 6,159 square feet of Wetland A is proposed to remain. Previous plans showed that approximately 85 linear feet of the unnamed watercourse associated with Wetland A would be enclosed through the placement of a culvert beneath the proposed Crestwyck Lane in the central portion of the site; no relevant culvert information was given. The part of a PUD within the City is: *To preserve, dedicate or set aside open space or natural features due to their exceptional characteristics or their environmental or ecological significance in order to provide a permanent transition or buffer between land uses, or to require open space or other desirable features of a site beyond what is otherwise required in this ordinance (§138-7.103.D.1).* Wetland A and its associated watercourse are part of a high quality wetland system that extends off-site to the north and any impacts to this wetland should be minimized where possible. The Current Plans indicate that a 20"x28" arch culvert will be placed into the unnamed watercourse and "...buried 8" below the existing grade of the ditch." The Current Plans also state that "By burying the pipe, the existing ditch will maintain a natural bottom while crossing the proposed roadway..." The proposed size, shape, and installation strategy of the culvert is a *generally* accepted standard for such activities per the DEQ. ASTI agrees that the culvert as proposed, should not hinder the natural flow of the unnamed watercourse and should allow for aquatic fauna to still utilize the unnamed watercourse. Best management practices should be followed during any construction in and around the watercourse to prevent and minimize any unplanned potential impacts to the unnamed watercourse.

Although Wetland A is of high quality, the impacts associated with the development of Lot 12 in the north central portion of the site are minimal (353 square feet). Therefore, ASTI recommends the City allow for a Wetland Use permit for this activity.

ASTI recognizes that the construction of Crestwyck Lane and its associated utilities are dependent on being constructed within Wetland A due to site area constrictions. Therefore, ASTI recommends the City allow for a Wetland Use Permit for the activity associated with the construction of the proposed Crestwyck lane in the central portion

of the site, south of Lot 13 as shown on the Current Plans. Furthermore, the impacts to this portion of Wetland A will likely hydrologically isolate the remaining portion of Wetland A associated with the area of the proposed detention basin; thus, ASTI also recommends the City allow for a Wetland Use permit for placement of the detention basin in this area.

In the previous review, ASTI stated that a permanent structure, such as a 1-2 feet high fieldstone boulder wall be constructed around all remaining portions of Wetland A, where possible, to ensure no future unplanned impacts to Wetland A occur. The Current Plans indicated a 1.5 feet high boulder wall around the remaining portions of Wetland A north and south of the proposed Crestwyck Lane. The placement of this structure where shown, provides a permanent barrier and should help ensure further unplanned impacts to Wetland A and the unnamed watercourse. This is to ASTI's satisfaction.

3. **Use Permit Approval Criteria (§126-565).** This Section lists criteria that shall govern the approval or denial of an application for a Wetland Use Permit. The following items must be addressed on a revised and dated Wetland Use Permit application and additional documentation submitted for further review:
 - a. A Wetland Use Permit from the City and a DEQ Part 303 Permit are required for this project as proposed. Once a DEQ permit is received by the applicant, it must be submitted to the City for review. The applicant has indicated that this is understood.

4. **Natural Features Setback (§21.23).** This Section establishes the general requirements for Natural Features Setbacks and the review criteria for setback reductions and modifications.
 - a. Should the City accept the applicant's proposal to develop the subject property as a PUD, subject to final review and approval as part of the site plan review process, the on-site Natural Features Setback regulations can be waived by the City at its discretion. The applicant should note that upon the request of the City, ASTI will re-evaluate any Natural Features Setback impacts if the City does not waive Natural Feature Setback regulations.

 - b. The Current Plans indicate that approximately 961 linear feet of Natural Features Setback will be permanently impacted from the construction of the development around Wetland B. Around the west, south and north of Wetland B, the Natural Features Setback is comprised of common native species such as young box elder, Kentucky blue grass (*Poa pratensis*), cottonwood saplings, as well as invasive species such as multiflora rose (*Rosa multiflora*), honey suckle species (*Lonicera japonica* and *L. tatarica*) and mustard garlic (*Alliaria petiolata*). Total tree canopy was approximately 15%. The Natural Features Setback in this area is of poor floristic quality and appears to be maintained and/or controlled by

mowing and other vegetative maintenance activities. The Natural Features Setback to the north and northeast of Wetland B is dominated by young to moderately mature native tree species such as shagbark hickory (*Carya ovata*), black cherry (*Prunus serotina*), and red oak (*Quercus rubra*). Total canopy in this area was estimated at approximately 60-70%. The Natural Features Setback in this area is forested and of high floristic quality and generally unaltered. These impacts are shown on the Current Plans to ASTI's satisfaction.

- c. The Current Plans indicate that approximately 591 linear feet of Natural Features Setback will be permanently impacted from construction activities around Wetland A. The Natural Features Setback in this area is comprised of young to moderately mature native tree species such as shagbark hickory, black cherry, red oak, linden (*Tilia americana*), and silver maple. Total canopy was approximately 60-80%. The Natural Features Setback in this area is forested, of high floristic quality, and appears to be generally unaltered. These impacts are shown on the Current Plans to ASTI's satisfaction.

RECOMMENDATIONS

ASTI recommends the City approve the Current Plans.

Respectfully submitted,

ASTI ENVIRONMENTAL



Kyle Hottinger
Wetland Ecologist



Dianne Martin
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