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September 9, 2025

Chris McLeod, Planning Manager Department of Planning and Economic Development City of Rochester Hills 1000 Rochester Hills Drive Rochester Hills, MI 48309-3033

Subject: Auburn Angara Oaks Development

(Sidwell Nos. 70-15-32-201-001, -003, -004, & -006)

Wetland Site Plan Review #2.a Site Plans dated September 4, 2025

ASTI File No. A25-0125.06

Applicant: Auburn Angara Oaks, LLC

Dear Mr. McLeod:

The above-referenced project proposes to construct fifteen residential structures and one outbuilding on 9.03 acres of land located along Auburn Road, west of Devondale Road and east of Richmond Drive. The site includes wetland regulated by the City of Rochester Hills and also likely regulated by the Michigan Department of Environment, Great Lakes, and Energy (EGLE).

ASTI has reviewed the site plans received by the City, dated September 4, 2025 (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.

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.
- 2. **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 completed on the site, which was inspected in the field by ASTI on August 1, 2024. The Current Plans show who completed the on-site delineation (Barr Engineering) and the date it was completed (July 9, 2024). ASTI revised the wetland delineation in the field for Wetland A. ASTI added flags in the west central and east central portions of Wetland A labeled RH-1 through RH-15. The applicant has surveyed the additional flagging placed by ASTI and has shown them on the Current Plans.

The Current Plans also indicate that the south boundary of Wetland B was delineated by Barr Engineering on October 30, 2023. This area is shown on the Current Plans to ASTI's satisfaction.

A response document from the applicant pertaining to the previous site plan review also indicates the area proposed for directional drilling from Devondale Road to Wetland B was delineated by Barr Engineering. The Current Plans now state that Barr Engineering completed a wetland delineation in this area on October 30, 2023, and that no wetland was found. This is to ASTI's satisfaction.

b. Two wetlands were found on-site as shown on the Current Plans (Wetlands A and B). Their quality assessments are below.

Wetland Quality Assessments

Wetland A

Wetland A is a forested, scrub/shrub, and emergent wetland located in the central portion of the site. The tree layer of Wetland A was dense to sparse and was dominated by the common native species of green ash (*Fraxinus pennsylvanica*), American elm (*Ulmus americana*), and cottonwood (*Populus deltoides*). The shrub layer was dense and overwhelmingly dominated by the non-native species of glossy buckthorn (*Frangula alnus*). The herbaceous layer was sparse and was dominated by the common native species of eastern wood sedge (*Carex blanda*), calico aster (*Symphyotrichum lateriflorum*), panicled aster (*Symphyotrichum lanceolatum*), and fowl manna grass (*Glyceria striata*), along with non-native species of redtop (*Agrostis gigantea*) and reed canary grass (*Phalaris arundinacea*). Overall, vegetation within Wetland A was dominated by common native species in the tree layer (75-85%) and herbaceous layer (50-60%) and dominated by non-native species in the shrub layer (80-100%). Soils within Wetland A were comprised of sandy loams and sandy clay loams and appeared to be relatively undisturbed.



Observations of primary wetland hydrology indicators within Wetland A included sparsely vegetated concave surfaces, surface water, water-stained leaves, and oxidized rhizospheres on living roots. Surface water was encountered within many portions of Wetland A on the day of the site inspection. Additionally, surface water was observed in connected wetland off-site to the west, indicating a water table and the potential for ground water contact and groundwater flows within Wetland A during periods of normal precipitation and ground water levels. These hydrological factors indicate Wetland A detains seasonal localized surface water runoff from precipitation and conducts potential ground water flow to the south/southeast, based on topographical information on the Current Plans and other publicly available data. Wetland A is a portion of a larger wetland headwater system that extends to the west and south that is in direct hydrological contact with the River Rouge to the south of the Project Area. The River Rouge is a regionally important watercourse.

Wetland A is not within floodplain and does not appear to have any significant flood storage on-site. Wetland A is a portion of a wetland system greater than five acres in size, which is also directly connected to the River Rouge to the south, and thus, warrants regulation from the City. Wetland A contains significant non-native species and likely only supports transient faunal usage by small wildlife and birds on-site. However, it is a portion of a larger wetland system to the south that appears to contain less significant non-native species composition based on limited field observations by ASTI. Based on these factors, it is ASTI's opinion that Wetland A is generally of low ecological quality and function but is part of a wetland system that, at minimum, is greater than ten acres in size including off-site extents that is directly connected to the River Rouge. Thus, it should be considered a medium-quality natural resource by the City.

Wetland B

Wetland B is a forested wetland, located in the south-central portion of the site, and is connected to Wetland A off-site to the south/southwest of the Project Area. Vegetation within Wetland B was dominated by the common native tree species of silver maple (*Acer saccharinum*) and American elm, which comprised approximately 70-80% of the total vegetation. The shrub layer was relatively sparse and was dominated by common native species of green ash saplings, American elm saplings, and the invasive shrub species of glossy buckthorn, generally in equal distribution. The herbaceous layer was sparse and was dominated by the common native species of fowl manna grass and calico aster. Overall, vegetation within Wetland B was dominated by native species (90%) with minor non-native species inclusions (10%). Soils within Wetland B were comprised of sandy loams with areas of a 0.5 inch to 1 inch muck layer and appeared to be relatively undisturbed.

Observations of primary wetland hydrology indicators within Wetland B included sparsely vegetated concave surfaces, 2 cm of muck over sandy loam soils, water marks, and oxidized rhizospheres on living roots. Neither groundwater nor surface water was encountered within Wetland B on the day of the site inspection. However, watermarks on trees within Wetland B were observed and measured by ASTI and ranged from 0.5 feet to greater than 2 feet in length, which indicates this area



regularly exhibits surface water, which could be an expression of groundwater based on observations within Wetland B and from reviewed historical aerial photography. These hydrological indicators suggest Wetland B detains varying amounts of seasonal localized surface water runoff from precipitation and conducts potential varying amounts of ground water.

Wetland B is not within floodplain and does not appear to have any significant flood storage on-site. Wetland B is connected to Wetland A off-site and, thus, should be considered one wetland system in an ecological sense, warranting regulation from the City. Wetland B contains very little non-native species and is part of a higher quality habitat, which could support higher rates of faunal usage by small wildlife and birds on-site. Moreover, it is a portion of a larger wetland system to the south that appears to contain less significant non-native species composition based on limited field observations by ASTI. Based on these factors, it is ASTI's opinion that Wetland B is of high ecological quality and function, is part of a wetland system at minimum larger than 10 acres in size including off-site extents, and is connected to the River Rouge; thus, it should be considered a high-quality natural resource by the City.

- 3. **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. On-site wetland boundaries are shown accurately on the Current Plans as inspected and revised in the field by ASTI on August 1, 2024, for the purposes of this review. The Current Plans also indicate that Barr Engineering completed the on-site wetland delineation on July 24, 2024.
 - All on-site wetlands are regulated by the City and likely EGLE, because they are a portion of the same wetland system that is greater than five acres in size that is directly connected to the River Rouge to the south, which meets the definition of a stream under Part 301.
 - b. A table showing all proposed wetland impacts for this project was presented on Sheet C-2.3; these amounts were used for ASTI's review of the Current Plans.
 - c. The Current Plans indicate that 39,195 ft² of Wetland A will be impacted from the construction of a portion of Angara Court, Harvey Street, and proposed Units 52-54 and associated utilities. This is a slight increase over previous submittals (+221 ft²). The wetland impacts in this area are significant. However, ASTI recognizes that some impacts to Wetland A will be unavoidable to construct prudent site access to the southern portion of the development. Moreover, although the totality of Wetland A should be considered of medium ecological quality to the City, the portion of Wetland A proposed to be impacted in this area is of poor quality (dense non-native species content and low ecological function). Therefore, ASTI conditionally recommends the City allow for these impacts. However, the remaining portions of Wetland A on-site must be protected from further development. In earlier plan



reviews, ASTI recommended that a retaining wall be placed along the west side of the proposed access road where Wetland A will be impacted as allowed by the City's engineering standards. A retaining wall, which is subject to final City approval, is now shown in these areas of impacts, which is to ASTI's satisfaction. This construction will minimize wetland impacts by reducing the proposed typical roadbed width as proposed within Wetland A while still being structurally sound. These actions should minimize the amount of proposed impacts to Wetland A, minimize the potential for unplanned impacts, reduce flashy storm flows into Wetland A, and potentially improve site aesthetics and native wetland vegetation.

Post construction, a City-approved wetland seed mix comprised of native Michigan species must be installed in any areas of unplanned temporary impacts to Wetland A, as well as along wetland side of the final retaining wall structure. All of this information is shown on the Current Plans on Sheet C2.3 to ASTI's satisfaction.

d. The Current Plans show that 361 ft² of permanent impacts to Wetland B will result from the construction of the City-required cul-de-sac of the site access road. These impacts are small and based on City safety and engineering standards, ASTI recommends the City allow for these impacts. Care must be taken during construction to avoid any unplanned impacts to Wetland B, which should be considered a high-quality natural resource to the City. A retaining wall, which is subject to City engineering standards, is proposed along the boundary of impacts to Wetland B, which should minimize any further impacts to Wetland B in this area. This is shown on Sheet C2.3 of the Current Plans and is to ASTI's satisfaction.

ASTI recommends that a City-approved wetland seed mix be applied to any areas of Wetland B incidentally disturbed from construction in this area; this information is shown to ASTI's satisfaction on Sheet C2.3 of the Current Plans.

- e. The Current Plans indicate that 8 ft² of Wetland A will be impacted from the construction of a portion of the driveway and grading activities associated with Unit 59, which is a reduction of 17ft² from previous submittals. The wetland impacts in this area are very small. Moreover, although the totality of Wetland A should be considered of medium ecological quality to the City, the portion of Wetland A proposed to be impacted in this area is of poor quality (dense non-native species content and low ecological function). Therefore, ASTI conditionally recommends the City allow for these impacts. However, the remaining portions of Wetland A on-site must be protected from further development. A split rail fence with 18-inch boulders is shown along the remaining portion of Wetland A in this area. The split rail fence and boulder line will clearly mark the remaining area of Wetland A in this area and should minimize any unforeseen post-construction impacts to Wetland A. Therefore, ASTI recommends the City allow for these impacts as proposed.
- f. The Current Plans show that 69 ft² of permanent impacts to Wetland B will occur from grading from the proposed detention basin inlet. This action qualifies for an exemption to the Wetland and Watercourse Ordinance provided that: (1) a prior written notice is given to the City Engineer and written consent is obtained from the



City Mayor prior to work commencing; (2) the work is conducted using best management practices (BMPs) to ensure flow and circulation patterns and chemical and biological characteristics of wetlands are not impacted; and (3) such that all impacts to the aquatic environment are minimized. Any wetland areas disturbed by directional drilling activities must be seeded with a City-approved wetland seed mix. This is noted on the Current Plans to ASTI's satisfaction. Please note a permit from EGLE will likely be required for this activity.

- g. Post construction, a City-approved wetland seed mix comprised of native Michigan species must be installed in any areas of unplanned impacts to Wetland A, as well as along wetland side of the final retaining wall structure. All of this information is shown on the Current Plans on Sheet C2.3 to ASTI's satisfaction.
- h. The Current Plans indicate that the remaining portions of Wetlands A and B will be placed into a conservation easement (assumedly with EGLE). This will legally prohibit further development of Wetlands A and B; this is to ASTI's satisfaction.
- 4. **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 is required for this project as proposed on the Current Plans. The applicant has also submitted a draft EGLE permit for the project as proposed. The final EGLE permit for this project must be submitted to the City for review prior to the commencement of construction activities once obtained. Any other applicable permits from EGLE and any other applicable agencies must be obtained by the applicant prior to construction activities and submitted to the City for review.
- 5. **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. The Current Plans show Natural Features Setback areas and impacts are in linear feet as calculated by the applicant and per City per the revised wetland delineation by ASTI to ASTI's satisfaction.
 - b. The Natural Features Setback around Wetland A is generally comprised of young upland forest, upland scrub/shrub, and lawn areas. The tree layer within the forested area, which was prevalent around the northwest and southeast portions of Wetland A, was dominated by the common native tree species of cottonwood and black cherry (*Prunus serotina*) with significant inclusions of the non-native species of glossy buckthorn, which was thick within the shrub layer; the upland scrub/shrub Natural Features Setback was observed around the majority areas of Wetland A and was dominated by the non-native species of glossy buckthorn. Herbaceous coverage within the upland forested and upland scrub/shrub areas was sparse at the



time of the inspection; common native vegetation such as eastern wood sedge, and calico aster as well as the non-native species of reed canary grass were observed. The lawn area portion was comprised of mowed lawn and active unimproved vehicle trails. Vegetation within this area was dominated by Kentucky blue grass (*Poa pratensis*) and other common lawn species.

The Natural Features Setback around Wetland A was dominated by non-native species (65%) with significant common native species inclusions (35%). Due to the Natural Features Setback being generally dominated by non-native species, it should be considered a low-quality buffer to Wetland A.

- c. Regardless of the low-quality of the Natural Features Setback around Wetland A, it does provide at least minimal natural buffering for Wetland A. Therefore, steps should be taken to preserve the remaining portions of this area, which will also minimize unplanned impacts to the remaining portion of Wetland A on-site. To help minimize unplanned impacts to the remaining Natural Features Setbacks, and presumably Wetland A, ASTI recommended fieldstone or boulder wall or some other City-approved permanent structure at least 18 inches in height be constructed along the northern boundary of the proposed detention pond to ensure no further unplanned impacts from lawn maintenance or residential activities occur. The Current Plans show that a spilt rail fence and 18" boulders are proposed in these areas, which is to ASTI's satisfaction.
- d. The Current Plans show 740 linear feet of permanent impacts to the Natural Features Setback associated with Wetland A will occur from the construction of a portion of Angara Court, Harvey Street, buildings D and E, and Units 52-55 and 59. The Natural Features Setback in this area is mainly comprised of mowed lawn areas and is of low quality and function. Therefore, ASTI recommends the City allow for these impacts.
- e. Upon completion of construction of Lot 58, the cul-de-sac, and the detention pond as proposed on the Current Plans, ASTI recommends a City-approved wetland edge seed mix be installed in any unplanned areas disturbed by the construction of these areas. This is noted on Sheet C2.3 on the Current Plans to ASTI's satisfaction.
- f. In previous site plan reviews, ASTI recommended that signs stating no mowing, application of chemicals, etc. and as approved by the City should be placed around the Natural Features Setback to around what is now the northern boundary of the proposed detention basin. The Current Plans indicate that signage will be placed behind the split rail/boulder design specified above at an interval of 50 feet prohibiting mowing and the application of chemicals behind the fencing and boulders, which is to ASTI's satisfaction.
- g. The Natural Features Setback around Wetland B was generally comprised of young upland forest. This area was dominated by vegetation of the common native tree species of silver maple, black cherry, American elm, and box elder (*Acer negundo*). The shrub layer was sporadic and was comprised of the common native species of



gray dogwood (*Cornus racemosa*) and the non-native species of glossy buckthorn, generally in equal distribution. Herbaceous coverage was sparse at the time of the inspection and was generally dominated by the common native species of eastern wood sedge and panicled aster. The Natural Features Setback around Wetland B was dominated by common native species (75%) with significant inclusions of non-native species (25%). Due to the higher percentage of native species within the Natural Features Setback around Wetland B, it should be considered a medium quality buffer to Wetland B and impacts should be minimized.

- h. Approximately 70 linear feet of permanent Natural Features Setback Impacts are proposed at the proposed cul-de-sac at the southern portion of the access drive. ASTI recognizes the only prudent area to complete the City-required cul-de-sac is partially within the northern portion of the Natural Features Setback associated with Wetland B. Thus, ASTI recommends the City allow for these impacts.
- i. Steps to protect the remaining portions of the medium-quality Natural Features Setback around the high-quality Wetland B against unplanned impacts must be taken to preserve their remaining quality and functions. The Current Plans propose 89 linear feet of Natural Features impacts around Wetland B from the construction of Lot 58 and the cul-de-sac of Angara Court. To help minimize unplanned impacts to the remaining Natural Features Setbacks, and presumably Wetland B, ASTI recommended a fieldstone or boulder wall or some other City-approved permanent structure at least 18 inches in height be constructed along the western boundary of the proposed Lot 58 to ensure no further unplanned impacts from lawn maintenance or residential activities occur. A retaining wall, which is subject to final City approval, is now shown in these areas of impacts, which is to ASTI's satisfaction. This construction will minimize wetland impacts by reducing the proposed typical roadbed width as proposed within Wetland B, while still being structurally sound.
- j. In the previous plan review, ASTI recommended signs stating no mowing, application of chemicals, etc. and as approved by the City and as referred to in Comment 5.e above, should be placed around the Natural Features Setback to remain around the western boundary of what is now Lot 58. Signage as recommended is proposed in this area on the Current Plans, which is to ASTI's satisfaction.
- k. The Current Plans show 89 linear feet of temporary Natural Features Setback impacts associated with Wetland B will occur from directional drilling associated with the sanitary sewer extension from Devondale Road. ASTI recommends the City allow for these impacts on the condition that any disturbances in the Natural Features Setback in this area should be graded to original elevations with on-site soils and seeded with a City-approved seed mix. This is noted on the Current Plans to ASTI's satisfaction.
- i. The Current Plans show that 99 linear feet of Natural Features Setback associated with Wetland B will be permanently impacted from the construction of the proposed on-site detention pond in the southern portion of the site.



This action would qualify for an exception to the Natural Features Setback ordinance provided that: (1) a prior written notice is given to the City Engineer and written consent is obtained from the City Mayor prior to work commencing; (2) the work is conducted using best management practices (BMPs) to ensure flow and circulation patterns and chemical and biological characteristics of wetlands are not impacted; and (3) such that all impacts to the aquatic environment are minimized. BMPs must be implemented during the construction phase of the proposed project and any temporarily impacted areas must be restored to original grade with original soils or equivalent soils, where applicable, and seeded with a City-approved seed mix. This is noted on the Current Plans to ASTI's satisfaction.

RECOMMENDATION

ASTI recommends the City approve the Current Plans.

Respectfully submitted,

ASTI ENVIRONMENTAL

Kyle Hottinger Wetland Ecologist

Professional Wetland Scientist #2927