



Planning and Economic Development

Sara Roediger, AICP, Director

From: Kristen Kapelanski, AICP
Date: 6/29/2020
Re: **Redwood at Rochester Hills (City File 18-022)**
Final PUD Plan - Planning Review #2

The applicant is proposing an attached housing unit development comprised of 121 residential units on a 29.95-acre site located near the southeast corner of Avon and Dequindre. The project was reviewed for conformance with the City of Rochester Hills Zoning Ordinance. The comments below and in other review letters are minor in nature and can be incorporated into a final site plan submittal for review by staff after review by the Planning Commission.

1. **Background:** This project has received Preliminary PUD Plan approval from City Council on December 9, 2019 following a recommendation from the Planning Commission at their November 19, 2019 meeting with the following findings and conditions, applicable comments from staff are italicized.

Findings:

- a) The proposed Preliminary PUD meets the criteria for use of the PUD option.
- b) The proposed Preliminary PUD meets the submittal requirements for a Preliminary PUD.
- c) The proposed development should have a satisfactory and harmonious relationship with the development on-site as well as existing development in the adjacent vicinity.
- d) The proposed development is not expected to have an unreasonably detrimental or injurious effect upon the natural characteristics and features of the site or those of the surrounding area.
- e) The proposed development is consistent with the Master Land Use Plan to provide an alternate housing option.
- f) The density, minimum perimeter rear yard setbacks, porch square-footages, design features and the exterior finishes percentage of wood or vinyl are modified as part of the PUD to allow flexibility and quality development.

Conditions:

- a) Approval shall only confer the right of the applicant to submit detailed site plans consistent with the layout and at a density not exceeding that shown on the Preliminary PUD. *In compliance, the final plan is consistent with the approved concept plan.*
- b) The site plans, including but not limited to landscaping, engineering, tree removal and setback modification plans will meet all applicable City ordinances and requirements while remaining consistent with the Preliminary PUD layout plan. *In compliance, the final plan is consistent with applicable ordinances and the approved concept plan.*
- c) The architectural quality of building plans submitted with the site plans and PUD Agreement in step 2 of the PUD process will be equal to or better than that approved with the Preliminary PUD plan. *The provided elevations are generally the same as those shown as part of the Preliminary PUD approval/submittal.*
- d) Recommendation by the Planning Commission and approval by City Council of a PUD Agreement, as approved by the City Attorney, at Final PUD review. *Submitted as part of Final PUD submittal, City staff and attorney recommend approval.*
- e) Approval of a Wetland Use Permit, Tree Removal Permit and Steep Slope Permit at Final PUD review
- f) Provide landscape and irrigation bond in an amount to be determined at Final PUD, plus inspection fees, as adjusted as necessary, prior to issuance of a Land Improvement Permit.

- g) Provide a public benefit in the amount of \$100,000, of which the Planning Commission's preferences are improving the pathway, installing the PRV and/or any other such improvements that staff determines, prior to obtaining a Land Improvement Permit.
- h) Address applicable comments from City staff memos.
- i) Add landscaping for Mr. Stuhlsatz at 51170 Dequindre, Shelby Township to block headlights, prior to final approval by staff.

2. **PUD Requirements** (*Section 138-7.100-108*). The PUD option is intended to permit flexibility in development that is substantially in accordance with the goals and objectives of the City's Master Land Use Plan at the discretion of the City Council. The PUD development shall be laid out so that the various land uses and building bulk will relate to each other and to adjoining existing and planned uses in such a way that they will be compatible, with no material adverse impact of one use on another. The PUD option seeks to:

- Encourage innovation to provide variety in design layout
- Achieve economy and efficiency in the use of land, natural resources, energy and the provision of public services and utilities
- Encourage the creation of useful open spaces
- Provide appropriate housing, employment, service and shopping opportunities

The PUD option can permit:

- Nonresidential uses of residentially zoned areas
- Residential uses of nonresidential zoned areas
- Densities or lot sizes that are different from the applicable district(s)
- The mixing of land uses that would otherwise not be permitted; provided that other objectives are met and the resulting development will promote the public health, safety and welfare

Review Process

The PUD review process consists of a two step process as follows:

- a. **Step One: Preliminary PUD Plan.** The Preliminary PUD plan is intended to show the location of site improvements, buildings, utilities, and landscaping with a level of detail sufficient to convey the overall layout and impact of the development. The Preliminary PUD plan is not intended to demonstrate compliance with all ordinance requirements, but rather is intended to establish the overall layout of the development, including the maximum number of units which may be developed. This step requires a Planning Commission public hearing and recommendation to City Council followed by review by the City Council.
- b. **Step Two: Final PUD/Site Plan/PUD Agreement.** The second step in the process is to develop full site plans based on the approved Preliminary PUD plan and to submit the PUD Agreement. At this time, the plans are reviewed for compliance with all City ordinance requirements, the same as any site plan. This step requires a Planning Commission recommendation to City Council followed by review by the City Council.

Qualification Criteria

Section 138-7.102 sets forth the criteria that a PUD must meet. Each of the criterion are listed below in italics, followed by staff comments on the proposed PUD's compliance with each.

- a. The PUD option shall not be used for the sole purpose of avoiding applicable requirements of this ordinance. The proposed activity, building or use not normally permitted shall result in an improvement to the public health, safety, and welfare in the area affected. *The development of smaller rental units provides some diversity in housing stock for the community, which traditionally has been developed with larger subdivision and site condominium lots. Additionally, single story rental units with attached garages allow for a greater diversity of housing options for residents looking to rent but still looking for single-family features, like an attached garage.*
- b. The PUD option shall not be utilized in situations where the same land use objectives can be accomplished by the application of conventional zoning provisions or standards. *There are several variances under conventional zoning that were required including overall density. Through the use of the PUD, the City has the ability to be flexible with regulations in return for development that is above and beyond conventional development.*
- c. The PUD option may be used only when the proposed land use will not materially add service and facility loads beyond those contemplated in the master land use plan. The applicant must demonstrate to the satisfaction of

the City that the added loads will be accommodated or mitigated by the applicant as part of the PUD. *The Master Plan calls for residential units at 3 units per acre for the property. The proposed residential units are greater than the planned density at 3.97 units per acre, but the Department of Public Services and public safety departments have not expressed a concern regarding impacts to the road system and City utilities. The Engineering Department have conducted a full review of public utility and service needs as part of step two site plan review.*

- d. The PUD shall meet as many of the following objectives as may be deemed appropriate by the City: The PUD is not required to comply with all of the items listed in this criterion; it is up to the judgment of the Planning Commission and City Council to determine if the proposed development provides adequate benefit that would not otherwise be realized. In this instance, it may be the development of a desired land use to provide diversity in housing options in the City.
 1. 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. *The site falls under the tree conservation ordinance and contains regulated wetlands and steep slopes. The plans indicate the majority of the regulated wetlands and steep slopes will be preserved. Additional information on wetland and mitigation is provided in the ASTI review dated January 14, 2020. Additional information on tree preservation and impacts is provided later in this review.*
 2. To guarantee the provision of a public improvement that would not otherwise be required to further the public health, safety or welfare, protect existing uses or potential future uses in the vicinity of the proposed development from the impact of a proposed use, or alleviate an existing or potential problem relating to public facilities. *A pathway has been provided along Dequindre Road, as required. Additionally, the applicant has expressed their intention to work with the City on the installation of a pressure reducing valve and the provision of an easement to accommodate the valve. See the engineering review letter dated January 27, 2020 for additional information.*
 3. To promote the goals and objectives of the Master Land Use Plan and other applicable long range plans such as the Master Thoroughfare Plan. *The proposed project promotes the following goals and objectives of the Master Land Use Plan and other applicable long range plans:*
 - (a) *Provide a diversity of housing types and sizes to meet the needs of people of different ages, incomes and lifestyles within the community.*
 - (b) *Encourage the mixture of residential types of residential uses that are compatible with the established character of the surrounding neighborhood.*
 - (c) *Provide a safe, efficient non-motorized pathway system that provides links to various land uses throughout the City.*
 4. To facilitate development consistent with the Regional Employment Center goals, objectives, and design standards in the City's Master Land Use Plan. *Not applicable.*
 5. To preserve and appropriately redevelop unique or historic sites. *Not applicable.*
 6. To permanently establish land use patterns that are compatible with or will protect existing or planned uses. *As previously noted, the development of single story rental units at the proposed density at this location is a logical use, providing diversity in housing stock for the community.*
 7. To provide alternative uses for parcels that can provide transition or buffers to residential areas and to encourage redevelopment of sites where an orderly transition or change of use is desirable. *The use of the PUD option to provide single story rental units allows for a type of housing that is lacking in the City. A plan that illustrates how the site could be developed under the current zoning district has been provided as a comparison.*
 8. To enhance the aesthetic appearance of the City through quality building design and site development. *While significant portions of the site do include front entry garages, the applicant has made an effort to incorporate side entry garages into portions of the site, particularly in those areas facing public rights-of-way.*
3. **Zoning and Land Use** (Section 138-4.300 and 138.7.103). The site is zoned R-3 One Family Residential District with the MR Mixed Residential Overlay. The applicant would need to develop under the MR Overlay, rezone the site to RM-1 Multiple Family Residential or develop the site with a PUD option. Refer to the table below for the zoning and existing and future land use designations for the proposed site and surrounding parcels.

	Zoning	Existing Land Use	Future Land Use*
Proposed Site	R-3 One Family Residential with MR Mixed Residential Overlay	Vacant single family home	Residential 3 with Mixed Residential Overlay
North	B-2 General Business with MR Mixed Residential Overlay & R-1 One Family Residential	Single Family Home and Bloomer Park	Residential 3 with Mixed Residential Overlay and Park
South	R-3 One Family Residential	Vacant	Landfill
East	B-3 Shopping Center Business with MR Mixed Residential Overlay & R-3 One Family Residential with MR Mixed Residential Overlay	Vacant	Residential 3 with Mixed Residential Overlay
West	R-3 One Family Residential	Vacant	Landfill

*Plan submitted under previous Master Plan for Land Use

4. **Site Design and Layout** (Section 138-5.100-101, Section 138-8.400-402 and 138-8.500-502). Refer to the table below as it relates to the area, setback, and building requirements of this project. For purposes of this review, the proposed plan was reviewed in accordance with the requirements of the MR Overlay as that is the most similar zoning district for what is being proposed.

Requirement	Proposed	Staff Comments
Parcel Area 10 acres	29.96 acres	In compliance
Density 3.45 units/acre	3.97 units/acre	Not in compliance – this standard was modified as part of the Preliminary PUD
Max. Height 2.5 stories/30 ft.	20 ft.	In compliance
Min. Perimeter Front Setback (Dequindre Rd.) 20 ft.	30 ft.	In compliance
Min. Perimeter Front Setback (Avon Rd.) 20 ft.	100 ft. +	In compliance
Min. Perimeter Side Setback 25 ft.	30 ft.	In compliance
Min. Perimeter Rear Setback 60 ft.	50 ft.	Not in compliance – this standard was modified as part of the Preliminary PUD
Min. Interior Front Setback 15 ft.	20 ft.	In compliance
Min. Interior Side Setback (each/total) 10 ft./20 ft.	10 ft./20 ft.	In compliance
Min. Interior Rear Setback 35 ft.	35 ft.	In compliance
Open Space 5% of gross area developed as active open space = 44,151 sq. ft.	66,750 sq. ft.	In compliance
Garages Min. 1 car garage/unit	2 car garage/unit	In compliance
Entrances/Porches Exterior entrance w/ min. 30 sq. ft. unenclosed front porch	Min. 22 sq. ft. porch	Not in compliance – this standards was modified as part of the Preliminary PUD
Design Features Min. 10% columns, cornices, pediments, articulated bases and/or fluted masonry on front facade	Min. 0%	Not in compliance – this standard was modified as part of the Preliminary PUD
Windows/doors Min. 25% of wall area facing a street Windows must be recessed or have trim detailing	Min. 28%	In compliance
Exterior Finishes Max. 33% wood or vinyl siding Max. 10% EIFS	Max. 99% (side elevations) – Not High Profile Areas	Not in compliance – this standard was modified as part of the Preliminary PUD
Min. Floor Area	Min. 1,713 sq. ft.	In compliance

Requirement	Proposed	Staff Comments
1,250 sq. ft.		

5. **Exterior Lighting** (*Section 138-10.200-204*). A photometric plan showing the location and intensity of exterior lighting must be provided as part of all future plan sets. Refer to the table below as it relates to the lighting requirements for this project.

Requirement	Proposed	Staff Comments
Shielding/Glare Lighting shall be fully shielded & directed downward at a 90° angle Fixtures shall incorporate full cutoff housings, louvers, glare shields, optics, reflectors or other measures to prevent off-site glare & minimize light pollution Only flat lenses are permitted on light fixtures; sag or protruding lenses are prohibited	Cut sheets provided	In compliance – porch lighting and landscape lighting only proposed
Max. Intensity (measured in footcandles fc.) 10 fc. anywhere on-site, 1 fc. at ROW, & 0.5 fc. at any other property line	Photometric data provided	In compliance
Lamps Max. wattage of 250 watts per fixture LED or low pressure sodium for low traffic areas, LED, high pressure sodium or metal halide for parking lots	Max. 60 watts	In compliance
Max. Height 20 ft., 15 ft. when within 50 ft. of residential	Building mounted lighting only proposed	In compliance

6. **Parking, Loading and Access** (*138-11.100-308*). Refer to the table below as it relates to the parking and loading requirements of this project.

Requirement	Proposed	Staff Comments
Min. # Parking Spaces Multiple Family: 1.5 spaces per dwelling unit with 2 or fewer bedrooms + 0.2 visitor spaces per dwelling unit = 204	264 spaces	In compliance
Max. # Parking Spaces 200% of Min. = 408 spaces		
Min. Barrier Free Spaces 4 spaces + 3.33% of total parking for 201-300 spaces = 13 spaces	121 ADA spaces in unit garages 1 visitor ADA spaces	In compliance
Min. Parking Space Dimensions 9 ft. x 18 ft. (employee spaces) 10 ft. x 18 ft. (customer spaces) 24 ft. aisle	10 ft. x 18 ft.	In compliance
Min. Parking Setback 10 ft. on all sides	10 ft. +	In compliance
Loading Space No requirement; however, sites shall be designed such that trucks & delivery vehicles may be accommodated on the site		

- Pedestrian pathways and sidewalks have been included on the site. In some instances, sidewalks have not been included in all portions of the development due to natural features conflicts and ADA requirements.

7. **Natural Features.** In addition to the comments below, refer to the review letters from the Engineering and Forestry Departments and the City’s Wetland Consultant that pertain to natural features protection.
- **Environmental Impact Statement (EIS)** (*Section 138-2.204.G*) An EIS meeting ordinance has been submitted for the project.
 - **Natural Features Setback** (*Section 138-9 Chapter 1*). The site does contain regulated wetlands. See the ASTI letter dated January 14, 2020 for additional information.

- **Steep Slopes** (Section 138-9 Chapter 2). The site does contain regulated steep slopes. Refer to engineering review letter dated January 27, 2020 for additional comments.
 - **Tree Removal** (Section 126 Natural Resources, Article III Tree Conservation). The site is subject to the city's tree conservation ordinance, and so any healthy tree greater than 6" in caliper that will be removed must be replaced with one tree credit. Trees that are dead or in poor condition need not be replaced. A tree preservation plan has been included indicating the removal of 45 regulated trees. The removal of any regulated tree requires the approval of a tree removal permit and associated tree replacement credits, in the form of additional plantings as regulated in the Tree Conservation Ordinance or a payment of \$216.75 per credit into the City's tree fund.
 - **Wetlands** (Section 126 Natural Resources, Article IV Wetland and Watercourse Protection). The site does contain potentially regulated wetlands. Several impacts are proposed to the five wetlands identified on the site. See the ASTI letter dated January 14, 2020 for additional information.
8. **Dumpster Enclosure** (Section 138-10.311). Dumpsters are not presently indicated. Trash is collected by a private company at each unit.
 9. **Equipment Screening** (Section 138-10.310.J). All heating, ventilation and air conditioning mechanical equipment located on the exterior of the building shall be screened from adjacent streets and properties.
 10. **Landscaping** (Section 138-12.100-308). Refer to the table below as it relates to the landscape requirements for this project. **The landscape sheets were missing with this submittal and should be included in the packets to be sent to the Planning Commission and City Council. These comments are based on the previous review which indicated no significant concerns with the Final PUD landscape plan.**

Requirement	Proposed	Staff Comments
Right of Way (Avon: 224 ft.) 1 deciduous per 35 ft. + 1 ornamental per 60 ft. = 6 deciduous + 4 ornamental	6 deciduous 4 ornamental	In compliance
Right of Way (Dequindre: 1,090 ft.) 1 deciduous per 35 ft. + 1 ornamental per 60 ft. = 31 deciduous + 18 ornamental	31 deciduous 19 ornamental	In compliance
Buffer C (West: 640 ft.) 20 ft. (or 8 ft. with wall) + 2 deciduous + 1.5 ornamental + 4 evergreen + 6 shrubs per 100 ft. = 20 ft. + 13 deciduous + 10 ornamental + 26 evergreen + 38 shrubs	20 ft. + 13 deciduous 1 ornamental 26 evergreen 38 shrubs	In compliance
Buffer C (South: 630 ft.) 20 ft. (or 8 ft. with wall) + 2 deciduous + 1.5 ornamental + 4 evergreen + 6 shrubs per 100 ft. = 20 ft. + 13 deciduous + 9 ornamental + 25 evergreen + 38 shrubs	20 ft. + 13 deciduous 10 ornamental 26 evergreen 38 shrubs	In compliance
Buffer B (North: 978 ft.) 10 ft. + 2 deciduous + 1.5 ornamental + 2 evergreen + 4 shrubs per 100 ft. = 10 ft. + 20 deciduous + 15 ornamental + 20 evergreen + 39 shrubs	10 ft. + 20 deciduous 16 ornamental 20 evergreen 40 shrubs	In compliance
Stormwater Basin B: 490 ft. 6 ft. width + 1.5 deciduous + 1 evergreen + 4 shrubs per 100 ft. = 6 ft. + 7 deciduous + 5 evergreen + 20 shrubs Basins shall be designed to avoid the need to perimeter fencing.	6 ft. + 8 deciduous 5 evergreen 20 shrubs	In compliance

- A landscape planting schedule has been provided including the size of all proposed landscaping. A unit cost estimate and total landscaping cost summary, including irrigation costs, for landscape bond purposes has been provided.
- If required trees cannot fit or planted due to infrastructure conflicts, a payment in lieu of may be made to the City's tree fund at a rate of \$216.75 per tree. Existing healthy vegetation on the site may be used to satisfy the landscape requirements and must be identified on the plans.
- All landscape areas must be irrigated. This has been noted on the landscape plan. An irrigation plan must be submitted prior to staff approval of the final site plan. A note specifying that watering will only occur between the hours of 12am and 5am has been included on the plans.
- Site maintenance notes listed in Section 138-12.109 have been included on the plans.

- A note stating “Prior to the release of the performance bond, the City of Rochester Hills must inspect all landscape plantings.” has been included on the plans.
11. **Architectural Design** (*Architectural Design Standards*). Building elevations have been submitted for several unit types. The majority of those emphasize the garage door as the majority of the front façade which is not the most desirable design option. The City’s *Architectural Design Standards* emphasizes this point in *Section 3.2.2 Hierarchy of Massing* which states that “the location of the main body of the house and the human entrance should be easily distinguished. The car entry shall not be the most notable element of the building massing.” The applicant has included some side-entry garages interior to the site and the units facing Dequindre will not include garages on the elevations facing Dequindre. Additionally, the applicant submitted revised elevations prior to the Planning Commission meeting in November of 2019 highlighting revised facades for high-profile locations that included significantly more brick and stone materials.
 12. **Entranceway Landscaping and Signs.** (*Section 138-12.306 and Chapter 134*). A note has been included on the plans that states that all signs must meet the requirements of the City and be approved under separate permits issued by the Building Department.



JRB

DPS/Engineering
Allan E. Schneck, P.E., Director

From: Jason Boughton, AC, Engineering Utilities Specialist
To: Kristen Kapelanski, AICP, Planning Manager
Date: June 19, 2020
Re: Redwood at Rochester Hills, City File #18-022, Section 13
Final PUD Plan Review #2

Approved

Engineering Services has reviewed the site plan received by the Department of Public Services on June 15, 2020 for the above referenced project. Engineering Services **does** recommend final PUD approval with the following comments:

Sanitary Sewer

1. An offsite sanitary sewer easement will need to be obtained from the owners of parcel #15-13-476-004 to provide this development with an outlet for sanitary sewer.

Grading

1. A steep slope permit will be required from the planning commission for the proposed development. The developer and engineer went through multiple layouts before determining this layout, which minimized the impact to the existing steep slopes on the property along with the setbacks associated with those steep slopes.
2. Revise the proposed grading behind building M to provide better protection from the wetland detention area.

Traffic/Pavement

1. On sheet L-3, the proposed subdivision entrance monument signs need to be shown at Avon Rd and Dequindre Rd as they appear to be in conflict with the required pathway sight distance lines. On sheet C200, Avon Road Entrance Plan, does not show any fixed objects that may be in the sight line. Suggest adding objects to sheet C200, as well as any other pertinent plan sheets.

Landscape

1. Provide the landscape drawings as part of the final PUD set to verify location of tree plantings / signage does not influence any utilities or sight distances.

Legal

1. Spelling error in the second to last course in description (620.90 feet). "Seconds" is misspelled.
2. Include Liber and Page for title overlap Quit Claim Deed on survey.

The applicant has submitted for an LIP and are working on the fourth construction review at this time. Retaining walls have been approved for the project.

JRB/au

c: Allan E. Schneck, P.E., Director; DPS
Tracey Balint, P.E., Public Utilities Engineering Mgr.; DPS
Scott Windingland, DPS Aide; DPS
Keith Depp, Project Engineer; DPS
File

Paul Davis, P.E. City Engineer/Deputy Director; DPS
Paul G. Shumejko, P.E., PTOE, Transportation Eng. Mgr.; DPS
Russ George, Technician-Permits; DPS
Maureen Gentry, Planning Specialist; Planning & Development



FIRE DEPARTMENT
Sean Canto, Fire Chief

From: Vince Foisy
To: Planning Dept.
Date: June 26, 2020
Re: Redwood - Section #13 - Review #5

APPROVED

The street names submitted on the drawings received by Planning on 06/25/2020 have been reviewed as follows:

The following name(s) is/are Approved:

Prefi x	Street Name	Suffi x
	Songbird	Dr
	Lochspur	Dr
	Reserve	Dr
	Cabot	Dr
	Beale	Cir
	Annandale	Dr
	Clarion	Cir
	Honeybelle	Ct
	Rice	Ct

If you have any further questions please contact me at 248.841.2709

VINCENT B. FOISY
Communication Systems Administrator

cc: File

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ASSESSING DEPARTMENT
Laurie A Taylor, Director

From: Nancy McLaughlin
To: Sara Roediger
Date: 11/20/18
Re: Project: Redwood at Rochester Hills Review #1
Parcel No: 70-15-13-476-005
File No.: 18-022 BESC18-0175
Applicant: Redwood USA, LLC

No comment.



PARKS & NATURAL RESOURCES DEPARTMENT

Ken Elwert, CPRE, Director

To: Kristen Kapelanski, Planning Manager
From: Matt Einheuser, Natural Resources Manager
Date: January 8, 2020
Re: Redwood at Rochester Hills: Final PUD Review #1
File #18-022

Approved; no comments at this time.

Copy: Maureen Gentry, Economic Development Assistant

ME/ms

Mailing Address:
P.O. Box 2160
Brighton, MI 48116-2160800 395-ASTI
Fax: 810.225.3800

www.asti-env.com

January 14, 2020

Kristen Kapelanski
Department of Planning and
Economic Development
City of Rochester Hills
1000 Rochester Hills Drive
Rochester Hills, MI 48309-3033

**Subject: File No. 18-022 Redwood at Rochester Hills PUD
Wetland Use Permit Review #6;
Plans received by the City of Rochester Hills on
December 30, 2019**

Applicant: Redwood USA, LLC

Dear Ms. Kapelanski:

The above referenced project proposes to construct 121 residential units on one parcel totaling approximately 30 acres of land. The site is in the southwest quadrant of the intersection of Avon Road and Dequindre Road. The site includes wetland regulated by the City of Rochester Hills and likely the Michigan Department of Environment, Great Lakes, and Energy (EGLE).

ASTI has reviewed the site plans received by the City on December 30, 2019 (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 by the Applicant's wetland consultant, King and MacGregor Environmental. ASTI confirmed this wetland delineation in the field on November 30, 2018.

Five wetlands were identified on the property: Wetlands A, B, C, E, and F, all of which are regulated by the City. Portions of Wetlands A, C, and E are proposed to be impacted this project.

Wetland Quality Assessments

Five wetlands were delineated on the property. Quality assessments are as follows:

Wetland A and Wetland E

Wetland A and Wetland E were delineated as separate wetlands. However, Wetland A and Wetland E exhibit a direct surface hydrologic connection and are connected subsurface. Therefore, these two wetlands will be considered the same wetland complex for the purposes of this review.

Located in the central portion of the property, Wetland A/E is a forested, scrub/shrub, and emergent wetland comprised of vegetation of generally low ecological floristic quality. Vegetation within the forested portion of Wetland A/E, which is located in the extreme western on-site extent, was dominated by the native species of silver maple (*Acer saccharinum*), cottonwood (*Populus deltoides*), and American elm (*Ulmus americana*). Canopy within the forested portion was estimated at 70-80% and trees were generally mature. Vegetation within the scrub/shrub portion, which is located in the extreme eastern extent, was dominated by the common native species of sand bar willow (*Salix interior*), silky dogwood (*Cornus amomum*), pussy willow (*Salix discolor*), and the invasive species reed canary grass (*Phalaris arundinacea*). The emergent portion of Wetland A/E, which comprised the majority of this wetland complex, was dominated by the native species of lake bank sedge (*Carex lacustris*) and the invasive species Phragmites (*Phragmites australis*). Mean vegetation cover within the entirety of Wetland A/E was estimated at approximately 100% with an approximate total native species cover of 40% and approximate invasive species cover of 60%. Wetland hydrology is mainly supplied to Wetland A/E from ground water seepage from the west. Exposed and active groundwater flows and surface water was observed throughout this wetland complex on the day of ASTI's site inspection. Wetland A/E provides direct ground water filtration, groundwater recharge, and surface water detainment enhancing ground and surface water quality prior to entering the Clinton River to the east via a road ditch system along Dequindre Road. Soils were comprised of sandy loams and muck and appeared to be relatively undisturbed since approximately 1990 based on historical aerial photography review. The vegetation within Wetland A/E is dominated by invasive species, but does contain significant amounts of native species. Wetland A/E provides some of the last remaining natural water filtration and detainment functions in close proximity to the Clinton River near the property and should be considered an important natural resource of the City per the City's Wetland and Watercourse Protection Ordinance.

Wetland B

Wetland B is a small and isolated emergent wetland in the north central portion of the property, which exhibited vegetation dominated by reed canary grass. Wetland B likely detains small amounts of storm water from precipitation events and ponding; no surface water or ground water was observed. Wetland B appears to be the result of historic grading activities to the north. Soils were comprised of sandy loams and appeared relatively undisturbed. Wetland B is dominated by invasive species and is small and isolated, which reduces its potential to provide significant natural resource functions. Therefore, it is ASTI's opinion that Wetland B is of low ecological value and function and should not be considered an important natural resource to the City.

Wetland C

Wetland C is a forested and emergent wetland located in the north/northwest portion of the property. Vegetation within the forested portion of Wetland C, which is located in the western half of this complex on-site, was dominated by the common native species of box elder (*Acer negundo*), green ash (*Fraxinus pennsylvanica*), cottonwood, and the invasive species of glossy buckthorn (*Frangula alnus*). Canopy within the forested portion was estimated at 60-70% and trees were generally young. Vegetation within the emergent portion was dominated by the native species of lake bank sedge and common rush (*Juncus effusus*). Mean vegetation cover within the entirety of Wetland C was estimated at approximately 100% with an approximate total native species cover of 70% and approximate invasive species cover of 30%. Wetland hydrology is mainly supplied to Wetland C from ground water seepage from the west. Exposed and active groundwater flows and surface water was observed throughout this wetland complex on the day of ASTI's site inspection. Wetland C provides direct ground water filtration and surface water detainment, enhancing ground and surface water quality prior to entering the Clinton River to the east via off-site wetlands that empty directly into the Clinton River through a culvert beneath Dequindre Road. Soils were comprised of sandy loams and muck and appeared to be relatively undisturbed since approximately 1990 based on historical aerial photography review. The vegetation within Wetland C is dominated by native species, but does contain significant amounts of invasive species. However, Wetland C provides some of the last remaining natural water filtration and detainment functions in close proximity to the Clinton River near the property and should be considered an important natural resource of the City.

Wetland F

Wetland F is an emergent wetland located in the south central portion of the property. Vegetation within Wetland F was dominated by the invasive species of Phragmites and reed canary grass. Mean vegetation cover within Wetland F was estimated at approximately 100% with an approximate total native species cover of approximately 20% and approximate invasive species cover of 80%. Wetland hydrology is supplied to Wetland F from ground water seepage from the west.

Exposed and active groundwater flow and surface water was observed in this wetland complex on the day of ASTI's site inspection. Wetland F provides direct ground water filtration and surface water detainment, enhancing ground and surface water quality prior to entering the Clinton River to the south via an off-site watercourse system that empties directly into the Clinton River. Soils were comprised of sandy loams and muck and appeared to be relatively undisturbed since approximately 1990 based on historical aerial photography review. The vegetation within Wetland F is dominated by invasive species. However, Wetland F provides some of the last remaining natural water filtration and detainment functions in close proximity to the Clinton River in the area of the property and should be considered an important natural resource of 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 appears to be shown accurately on the Current Plans as well as all alpha-numeric wetland flagging as applied in the field. The Current Plans show the wetland delineation for this site was completed on October 18, 2019, which is to ASTI's satisfaction. The applicant is advised that wetland delineations are only considered valid by the City and EGLE for a period of three years past the completion date.
 - b. All wetland on the site is regulated by the City and likely EGLE. Wetland A/E is regulated by the City and likely EGLE because it exhibits a direct surface water connection to the Clinton River. Wetland B is regulated by the City and likely EGLE because it is within 500 feet of the Clinton River. Wetland C is regulated by the City and likely EGLE because it exhibits a direct hydrologic connection to the Clinton River. Wetland F is regulated by the City and likely EGLE because it exhibits a direct hydrological connection to an off-site watercourse system, which is directly connected to the Clinton River.
 - c. The Current Plans show that 3,898 square feet of permanent wetland impacts and 2,862 square feet of temporary impacts will occur in the eastern portion of Wetland A/E from the construction of a residential drive over the existing earthen pathway and an associated retaining wall at Wetland A/E. Wetland A/E is of low floristic quality in this area, however, this wetland functions as a direct groundwater recharge area and water filtration medium for the Clinton River to the east. The existing earthen path within Wetland A/E does not currently appear to affect the flow of ground water seepage or overland flows as observed during ASTI's November 30, 2018 site inspection. Any proposed development should avoid adversely affecting natural surface and ground water flows associated with this wetland complex. Sheet C605

- of the Current Plans shows a 24-inch storm sewer pipe beneath the proposed drive associated with Wetland A/E. It is ASTI's opinion that the proposed culvert will allow adequate ground water seepage and overland flow between the two wetland areas upon completion. Additionally, the Current Plans show a note stating that any temporary impact areas are to be restored to original grade with original soils or equivalent soils and seeded with a City-approved wetland seed mix and that restoration of any temporary wetland impacts will be subject to inspection by the City and ASTI upon completion. This is all to ASTI's satisfaction.
- d. The Current Plans show that 3,242 square feet of permanent wetland impacts and 1,691 square feet of temporary wetland impacts will occur in the northern portion of Wetland C from the construction of a residential access drive connecting to Avon Road. This portion of Wetland C is forested and of low floristic quality. However, Wetland C is an active ground water seep area directly connected to the Clinton River. Sheet C605 of the Current Plans shows three 12-inch storm sewer pipes spaced approximately 30-45 feet within 81 feet of the proposed drive from Avon Road within Wetland C. It is ASTI's opinion that this strategy should allow the current volumes and dissipation of natural groundwater seepage from the west to adequately flow through the entirety of the remaining portion of Wetland C east of the access drive. This plan should maximize water dissipation throughout Wetland C and minimize the chances of channelization, excess erosion, and drying out of areas within Wetland C not proposed for wetland impacts. Additionally, the Current Plans state that any temporary impact areas are to be restored to original grade with original soils or equivalent soils and seeded with a City-approved wetland seed mix. Restoration of any temporary wetland impacts will be subject to inspection by the City and ASTI upon completion. This is all to ASTI's satisfaction.
 - e. The Current Plans show proposed grading could impact the southwest portion of Wetland C northwest of Unit 1, south of Unit 18, and south of Unit 31, and Wetland A south of Unit 54. These impacts are small and will not likely alter the current natural functions of these wetlands. ASTI was notified by the Applicant that no wetland impacts are to occur in these areas prior to this review. A note on the proposed grading plan within the Current Plans states "Unless otherwise noted, all grading activities and limits of work are to terminate outside of the wetland areas." This is to ASTI's satisfaction. The Applicant should be aware that any unplanned temporary or permanent wetland impacts on-site will require immediate restoration and will be subject to City inspection and potential EGLE corrective actions.
 - f. In ASTI's first plan review of this project, it was recommended that plans should show a retaining structure, such as a 1-2 feet high fieldstone boulder wall, around all remaining on-site portions of Wetland A/E and Wetland C, where applicable, to ensure no future unplanned impacts to these wetlands occur. The Applicant has offered a description and photograph of a proposed 1-2 feet high fieldstone wall in

their response letter to the City dated August 26, 2019, which is to ASTI's satisfaction. Please note that final wall standards and construction will be subject to final City approval. The Current Plans show a retaining wall in the areas of proposed impact of Wetland C and Wetland A/E near proposed Units 40-44, units 82-85, and the road between Wetland A and Wetland E. This is to ASTI's satisfaction. The Applicant has requested that signage be placed along the remaining areas of Wetland on-site to discourage secondary impacts post-construction. ASTI agrees that this should help minimize unplanned activities such as, mowing, planting, clearing, etc. Signs should state that no construction or placement of structures, mowing, cutting, dredging, or the application of chemicals are allowed. Signs should be of an adequate size to be easily observed by residents. These actions should help minimize unplanned adverse effects to remaining wetland on-site from mowing, clearing, etc., as prescribed and would be in harmony with the City's PUD development standards. Final plans must show a detail of the proposed retaining wall and signage for City review.

- g. The Current Plans show two 12-inch storm sewer pipes emptying into Wetland E; one west of Unit 15 and one east of Unit 82; and one 12-inch storm sewer pipe emptying into Wetland A east of Unit 54.

These proposed actions qualify for an exception to the Wetland Use Permit 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. Revised plans must note that BMPs will be implemented during the construction phase of the proposed project and that any temporary impact areas be restored to original grade with original soils or equivalent soils and seeded with a City-approved wetland seed mix. This is noted on the Current Plans. These actions will require a Part 303 permit from EGLE, which must be obtained and submitted to the City for review.

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 and likely Part 303 Permit from EGLE are required for this project as proposed. Once an EGLE permit is received by the applicant, it must be 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. 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 and impact areas if the City does not waive Natural Feature Setback regulations. The Current Plans show Natural Features Setback impacts in linear feet 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



Dianne Martin
Vice President
Professional Wetland Scientist #1313



FIRE DEPARTMENT

Sean Canto
Chief of Fire and Emergency Services

From: Lee Mayes, Captain / Assistant Fire Marshal
To: Planning Department
Date: January 21, 2020
Re: Redwood at Rochester Hills

SITE PLAN REVIEW – FINAL PUD

FILE NO: 18-022

REVIEW NO: 1

APPROVED X

DISAPPROVED _____

The Fire Department recommends approval of the above reference site plan contingent upon the following conditions being met:

1. A flow test is required to determine if adequate fire flows are available for this development. Please contact the Rochester Hills Engineering Department at (248) 656-4640 to schedule an appointment.
 - A flow test is required prior to final site plan approval.

Lee Mayes
Captain / Assistant Fire Marshal



BUILDING DEPARTMENT
Scott Cope

From: Mark Artinian, Building Inspector/Plan Reviewer
To: Kristen Kapelanski, Planning Department
Date: January 24, 2020
Re: Redwood Living Residential Development – Review #4
East Avon Rd & Dequindre Rd
Sidwell: 15-13-476-005
City File: 18-022

The Building Department has reviewed the revised site plan approval documents received by the Planning Department on December 30, 2019 for the above referenced project. Our review was based on the 2015 Michigan Residential Code, the 2015 Michigan Building Code, ICC A117.1-2009 and the City of Rochester Hills Zoning Ordinance. **Approval is recommended.**

The following items should also be addressed on the building permit documents:

1. Staff members of the Building Department met with Mr. Chuck Grasser, Director of Development for Redwood Apartment Neighborhoods and Mr. James Keys of Mann Parsons Gray Architects on January 9, 2020 at Rochester Hills City Hall to discuss the permitting process for the units. During the meeting it was noted that the “Model Unit” designated as keynote F on the site plan provided, would continue to serve as a business office for the development and would **not** be converted into a residential housing unit. This unit will be reviewed under the 2015 Michigan Building Code.
2. The 4 space parking area located north of the Model Unit F shall have an accessible parking space and it shall be a Universal Barrier Free design to allow van access in any accessible parking space per the City Ordinance Section 138-11.300. Universal barrier free spaces shall be 11 feet in width, 18 feet in depth with a 5 foot access aisle. Please add these dimensions to the accessible space(s) shown.
3. Provide individual residence plot plans for code compliant site drainage at the time of individual building permit applications.
 - a. Lots shall be graded to fall away from foundation walls a minimum of 6 inches within the first 10 feet.
Exception: Where lot lines, walls, slopes or other physical barriers prohibit 6 inches (152 mm) of fall within 10 feet (3048mm), the final grade shall slope away from the foundation at a minimum slope of 5 percent and the water shall be directed to drains or swales to ensure drainage away from the structure. Swales shall be sloped a minimum of 2 percent when located within 10 feet (3048 mm) of the building foundation. Impervious surfaces within 10 feet (3048 mm) of the building foundation shall be sloped a minimum of 2 percent away from the building. Section R-401.3
 - b. Driveway slopes shall meet the following requirements:
 - i. Approach and driveway: 2% minimum – 10% maximum.
 - ii. Sidewalk cross-slope (including portion in the driveway approach): 1% minimum, 2% maximum is allowed but a design slope of 1.5% will allow for construction inaccuracies.

Should the applicant have any questions or require addition information they can call the Building Department at 248-656-4615.