



To: Ken Roberts, City of Lake Elmo Planning Director
From: Lucius Jonett, Wenck Landscape Architect
Date: February 15, 2019
Subject: City of Lake Elmo Landscape Plan Review
Bentley Village Preliminary Plat, Review #1

Submittals

- Tree Preservation Plan, dated 1-25-2019, received 2-01-2019 .
- Preliminary Landscape Plans, dated 1-25-2019, received 2-01-2019.

Location: Northwest quadrant of the intersection of Keats Ave. N & Interstate Hwy 94, Lake Elmo, MN. South of the Savona Development.

Land Use Category: Urban Medium Density Residential

Surrounding Land Use Concerns: The property to the north (Savona Development) is Urban Low Density Residential and is less intensive land use than this proposed Urban Medium Density Residential. The properties to the west (Lampert’s lumber yard), east and south are, or are guided, to be Commercial zones which are more intensive land use than this proposed Urban Medium Density Residential.

Special landscape provisions in addition to the zoning code: This proposed development will be required to provide screening along all borders North, South, West and East consisting of either a masonry wall or fence in combination with landscape material that forms a screen at least six feet in height and not less than 90% opaque on a year-round basis.

Tree Preservation:

- A. A tree preservation plan has been submitted that **does not** meet all requirements.
1. Significant trees are appropriately designated:
 - i. Over 6" DBH for hardwood deciduous trees (Birch, Cherry, Hickory, Ironwood, Hard Maples, Oak and Walnut). Tree Tag # 1756, 1757, and 1758 are significant hardwood trees and were not included in the tree replacement calculations.
 - ii. Over 12" DBH for common trees (Ash, Aspen, Basswood, Catalpa, Elm, Hackberry, Locust, Poplar, Silver Maple, Willow and any other tree not defined as a hardwood deciduous tree or a coniferous/evergreen tree). Tree Tag # 992, 994, and 996 are not significant common trees and were included in the tree replacement calculations.

		Entire Site	
Total Caliper Inches of Significant Trees On-Site:		915	Cal Inches
	Common Trees	280	
	Conifer/Evergreen Trees	0	
	Hardwood Trees	635	
Significant Inches Removed On-Site		767	Cal Inches
	Common Trees	279	
	Conifer/Evergreen Trees	0	
	Hardwood Trees	488	
30% Tree Removal Limits (Cal. Inches)		Allowed	Proposed
	Subtract Common Tree Removals	84	279
	Subtract Conifer/Evergreen Tree Removals	0	0
	Subtract Hardwood Tree Removals	190.5	488
Removals in excess of 30% allowances			
	Removals in excess of 30% allowances	492.5	Cal Inches
	Common Removals in Excess of 30% Allowance	195.0	
	Conifer Removals in Excess of 30% Allowance	0.0	
	Hardwood Removals in Excess of 30% Allowance	297.5	
	Common Tree Replacement Needed (1/4 the dia inches removed)	48.8	Cal Inches
	Conifer Tree Replacement Needed (1/2 the dia inches removed)	0.0	Cal Inches
	Hardwood Tree Replacement Needed (1/2 the dia inches removed)	148.8	Cal Inches
	Common Tree Replacement Required @ 2.5" per Tree	20	# Trees
	Conifer Tree Replacement Required @ 3" per 6' Tall Tree	0	# Trees
	Hardwood Tree Replacement Required @ 2.5" per Tree	60	# Trees

- B. There is a significant tree on the property. Tree ID #2742 – 44" DBH Oak. The tree is not marked for removal.
- C. Tree replacement is required because more than thirty (30) percent of the diameter inches of significant trees surveyed will be removed.

- D. Tree replacement calculations **do not** follow the current required procedure as of the ordinance updates approved on 9-19-2018:
1. A calculation must be provided which breaks out the number of inches removed for hardwood, evergreen/coniferous, and common trees. The 30% removal figure applies to each category individually and trees over the 30% allowance are to be replaced according to:
 - i. Common tree species shall be replaced with new trees at a rate of one-fourth (1/4) the diameter inches removed.
 - ii. Coniferous/evergreen tree species shall be replaced with new coniferous or evergreen trees at a rate of one-half (1/2) the diameter inches removed. Since coniferous species are often sold by height rather than diameter inch, the following conversion formula can be used: $\text{Height of Replacement Coniferous Tree} / 2 = \text{Diameter Inches of Credit}$
 - iii. Hardwood deciduous tree species shall be replaced with new hardwood deciduous trees at a rate of (1/2) the diameter inches removed.
- E. This project is residential development; therefore mitigation replacement trees shall be in addition to landscape required tree counts.

Landscape Requirements:

The preliminary landscape plans meet the code required number of trees.

	Preliminary Plan		
	(Code Required)	Proposed	
Street frontage	5908		Lineal Feet
Lake Shore	0		Lineal Feet
Stream Frontage	0		Lineal Feet
Total Linear Feet	5908		Lineal Feet
/50 Feet = Required Frontage Trees	119		Trees
Development or Disturbed Area	-		SF
Development or Disturbed Area	41.6		Acres
*5 = Required Development Trees	208		Trees
Interior Parking Lot Spaces*	28		Spaces
/10 = Required Parking Lot Trees	0		Trees
Required Mitigation Trees	80		
Required Number of Trees (**)	407		
Total Trees to Date		416	

* Parking lot landscaping or screening trees are included in landscape required tree Counts.
 None if 0 - 30 Parking Spaces

** Residential development - mitigation replacement trees are in addition to landscape required tree Counts.

1. A minimum one (1) tree **is not** proposed for every fifty (50) feet of street frontage.
2. A minimum of five (5) trees are proposed to be planted for every one (1) acre of land that is developed or disturbed by development activity.

The landscape plans **do not** meet the minimum compositions of required trees:

- Up to 15% of the required number of trees may be ornamental tree

Master Plan	Qty	% Composition	
Deciduous Shade Trees	168	40%	>25% required
Coniferous Trees	181	44%	>25% required
Ornamental Trees	67	16%	<15% required

Tree Count 416

- A. A landscape plan has been submitted that **does not** include all requirements.
 1. Landscaped areas should be of adequate size to allow proper plant growth, protect plantings from vehicular and pedestrian traffic, and provide adequate areas for plant maintenance.
 2. The landscape plan **does not** include required City standard notes and details.
 3. All **utilities** and pavements are not shown on the landscape plan to review for tree placement conflicts.

B. The landscape plan **does not** include the landscape layout requirements:

Topsoil Minimum 6-inch

C. Interior Parking Lot Landscaping – The development does include interior parking lots, but the number of parking spaces falls below the threshold of additional landscape requirements.

D. Perimeter Parking Lot Landscaping – The development does not include perimeter parking lots.

E. Screening – The landscape plan **does not** meet screening requirements.

Screening **is** required by City code. Screening shall be used to provide visual and noise separation of intensive uses from less intensive uses. Where screening is required in the City Code between uses or districts, it shall consist of either a masonry wall or fence in combination with landscape material that forms a screen at least six (6) feet in height, and not less than ninety percent (90%) opaque on a year-round basis. Landscape material shall include trees, planted at a minimum of one deciduous or coniferous tree per forty (40) linear feet along the property line. Additional landscape material such as shade trees or trellises may be required to partially screen views from above.

Special Landscape Considerations:

A. 5th Street – The development is along 5th Street, which has been previously or is schedule to be constructed by other developments. No additional landscape requirements are required of this applicant.

Findings:

1. Indication of 3 trees as significant and 3 trees as not significant was incorrect. This impacts the tree replacement calculation. The application is also using an incorrect tree replacement calculation and not following the updated formula that is required with the updates to Ordinance 08-220 on 9-19-2018. Following the current replacement calculation formula requires less tree replacement than the applicant is proposing.
2. Applicant rounded the required number of trees for road frontage at 118.16 down to 118. Application should round up on any fractions of trees.
3. Too many ornamental trees are used in the landscape plan, exceeding the 15% maximum composition. Applicant should revise the planting plan and schedule as needed to make sure the quantity of ornamental trees is less than 15% of the proposed tree planting.
4. Tree symbols are not drawn to full mature size on the proposed landscape plans and should be updated to make sure there is adequate landscape space between property lines and buildings. An example is on the southern property line where the buildings are approximately 18’ from the property line. The Austrian pines are drawn at 12’ diameter, while their mature diameter is 30’ to 40’. There is not enough room for the mature trees

- in this location. Applicant should update the scale of the proposed plantings and make adjustments to the layout (trees or buildings) as required.
5. City standard landscape details and notes have not been used. Applicant should include the City standard landscape notes and details in the drawings and remove their notes that are no longer applicable.
 6. Utilities are not shown on the landscape plans to review for utility conflicts. Applicant should include that layer in the landscape drawings.
 7. Topsoil depth is incorrectly labeled in the planting notes on sheet 33 as 4" minimum. City standard is 6" minimum. Applicant should update the note to the correct depth of 6".
 8. Top soil depth is to be 6" and is called out correctly on cross-section drawings, however note 1 in the planting notes on sheet 33 states 4" of topsoil. Note needs to be updated.
 9. A single, straight row of evergreen trees is inadequate for screening as proposed on the West and South property lines. Vegetative screening should consist of more than one row of evergreen trees and include a row of other trees or native shrubs in front of the evergreens to soften the "development wall" effect. The layout of the proposed screening on the East boundary is the minimum acceptable trees for screening and should include native shrubs to provide additional screening depth. The applicant should reconsider the layout of the proposed vegetative screen or consider other screening elements such as masonry wall or fences in combination with landscape material to provide screening.
 10. Requiring full screening along the north property line (5th Street) is not recommended as it will interfere with the required boulevard tree plantings in the 5th Street Design Guidelines. The proposed plantings along 5th street are not drawn to mature scale and when updated may require relocation so the trees are not growing into the 5th street boulevard trees or the buildings. Applicant should update the scale of the proposed plantings and make adjustments to the layout (trees or buildings) as required.

Recommendation:

It is recommended that condition of approval include:

1. Submit a revised landscape plan addressing the findings above.

Sincerely,



Lucius Jonett, PLA (MN)
Wenck Associates, Inc.
City of Lake Elmo Municipal Landscape Architect

