



ENVIRONMENTAL BOARD AGENDA

Wednesday, August 26, 2026

Broadcast on Cable TV Channel 16
and northmetrotv.com/lino-lakes-stream

ADVISORY BOARD MEETING, 6:30 P.M. Council Chambers (televised)

1. Call to Order and Roll Call
2. Pledge of Allegiance
3. Public Comment (*sign-in prior to start of meeting per Rules of Decorum*)
4. Setting the Agenda: Addition or Deletion of Agenda Items
5. Approval of Minutes: July 29, 2026
6. Action Items
 - A. Landscaping Ordinance Revisions
7. Discussion Items
 - A. Recycling Intern Updates
 - B. Development Updates

ADJOURNMENT

**CITY OF LINO LAKES
ENVIRONMENTAL BOARD MEETING**

DATE:	July 29, 2026
TIME STARTED:	6:29 p.m.
TIME ENDED:	7:16 p.m.
MEMBERS PRESENT:	Alex Schwartz, Mary Jo Stevenson, Danielle Berger, Jonathan Parsons, Elizabeth Larkin, Kelli Damiani
MEMBERS ABSENT:	Lindsay Buchmeier
STAFF PRESENT:	Thomas Hoffman, Jennifer Alderink,

1. CALL TO ORDER AND ROLL CALL

Mr. Schwartz called the Environmental Board meeting to order at 6:29 p.m. on July 29, 2026.

2. PLEDGE OF ALLEGIANCE

3. PUBLIC COMMENT

Mr. Schwartz declared open mike at 6:32 p.m. There were no public comments.

Mr. Schwartz closed public comments at 6:32 p.m.

4. SETTING THE AGENDA: Addition or Deletion of Agenda Items

Mr. Schwartz took a motion to approve the July 29th, 2026 agenda. Ms. Berger motioned to approve the agenda. Motion was seconded by Mr. Schwartz. Motion carried 6-0.

5. APPROVAL OF MINUTES

Mr. Schwartz took a motion to approve the May 27th, 2026 minutes. Ms. Larkin motioned to approve the agenda. Motion was seconded by Mr. Parsons. Motion carried 6-0.

6. ACTION ITEMS

Robinson South Concept Plan

The applicant, Twin Cities Land Development, is proposing a master planned development located on the south side of Main Street (CSAH 14), east of Sunset Avenue NE (County Road 53), and north of Carl Street. The proposed development is bordered by Blaine to the west. The development contains approximately 149.52 gross acres and consists of mix of residential housing and a proposed school. Including 55' wide lots (130), 65' wide lots (178), 80' wide lots (8), and row townhomes (73) for a total of 389 units.

Tom Hoffman, Environmental Coordinator for the City of Lino Lakes, presented and was available for questions.

Mr. Schwartz said that he would like to see more cohesive corridors of green space as opposed to patches in a development like this.

Mr. Hoffman responded that there is an existing ditch and wetland that it looks like the developers are going to preserve on the south side of the site which runs almost all the way to Sunset Avenue. He said that they could also try and find something from the county ditch going further to the east to tie into the existing wetland complex, which is the Wetland Management Corridor for Rice Creek. He also said that they are hoping to get a mix of wetland mitigation, stormwater management, and some upland to have a variety of habitat types for all sorts of different recreation, pollinator habitat, wildlife, and water quality benefits.

Mr. Schwartz said that he did notice a tremendous amount of floodplain, so his concern is that all the open space is going to be open water. He asked if there is an opportunity to go deeper in those borrow pits to reserve some upland area.

Mr. Hoffman said that the nice thing about the floodplain mitigation is that it requires you to have the bounce, so you can't just have water. He said you need to have the areas for the water to go during your high water level. He also said that a lot of it will probably be stormwater ponds, and then it will have benches during high water that goes up and floods those areas, so they'll probably be semi upland during peak rainfall events. Mr. Hoffman goes on to say that they'll be underwater for floodplain storage and then they'll seasonally dry out, which provides amazing habitat for migratory birds, nesting waterfowl, and everything else.

Mr. Parsons asked how we are keeping track to achieve the higher density area with more open space like it is shown in the AUAR Master Plan.

Mr. Hoffman said that the AUAR mitigation checklist will have open space requirements, density requirements, storm water requirements, etc. The checklist is how the City verifies and confirms that the developments meet the master planning document requirements.

Ms. Larkin noted that in the AUAR Master Plan, there was a call for more green space as you enter the City of Lino Lakes. She said that she is not seeing it on the proposal document.

Mr. Hoffman said that one of the comments was about the buffering along Main Street with the setbacks and landscaping. He said that there is an average width that they're trying to meet, along with the setbacks for the ditch corridor and the wetland conservation area. He also said that one of the big comments to the developers is to make sure we can meet those setbacks.

Ms. Larkin said that one of the concerns that she has is that the K-12 school will take up a large footprint and greenspace.

Mr. Hoffman said that the school will have their own stormwater management onsite that they're required to meet. Their requirements won't be any different than any of the other public schools or commercial developments we have. He noted that the developer will have to show if they can do infiltration first, which most likely they won't, based on the soil and that they'll be some wet ponding with some pretreatment for the parking lot.

Ms. Larkin said that the increased runoff is a concern.

Mr. Hoffman said that with all developments, they're not allowed to increase the runoff from the site, so no matter how much impervious they have or how big it is, the runoff isn't going to increase. He goes on to say that the runoff will actually decrease, so they'll be retaining more water on site.

Mr. Larkin asked if the City would have the water capacity and infrastructure in place to sustain the increase of 389 more units.

Mr. Hoffman said that we have the water available right now for this development and other developments that are in the queue. Engineering is working on some additional wells for when the City gets to that point through DNR, but right now the infrastructure is in place that would accommodate this development.

Ms. Berger commented that the sod farms are a spot where a lot of migrating birds come in the fall. She would like to know if there is a way to hold off when development happens or hold off on certain actions during development to help with that sensitive time.

Mr. Hoffman said that unfortunately there is never a good time to remove habitat. However, he said the City will try to incorporate those recommendations as best as they can based on the approvals and process. He did say that he does not anticipate construction out there this fall.

Mr. Hoffman goes on to say that based on the timing for the developments [in the area], not all of them are going to be developed at once. If the 149 acres to the south gets developed, there is still around 300 acres to the north that migrating birds can use. The new habitat that is created will be in place by the time the development to the north happens, so there will be a balance between the two.

Ms. Larkin talked about habitat fragmentation and said that she would prefer a designated space that would be more inviting rather than fragments of habitat here and there.

Mr. Hoffman said that along the ditch corridor, there is going to be a large open space with habitat on either side. That is going to be your largest contiguous area to get you in and out of the site within the development. He said that it is hard to set aside any large areas of land because of the density

requirements and the buildability of it. Mr. Hoffman does think that some of the road networks are going to be realigned, so that will likely open up some other areas where there are going to be larger, contiguous areas. He said that the overall project goal is to keep everything tied together.

Mr. Schwartz said he is concerned about the yield plan that was done for the Master Plan. The process was between a minimum of 489-711 units. We're a full 100 units short of the minimum of that. He wants to know if the shortage means that higher density will be forced onto future developments in the area. Mr. Schwartz would also like to know how this relates to the Met Council requirements for sewer systems.

Mr. Hoffman said the Met Council has changed the way they calculate their density since the Master Plan process was done. Based on some of the areas that we can pull out that we couldn't before, you don't need as many units on this acreage to get you there because you have less buildable area that [Met Council] considers it to be, so their calculations are off. Katie Larsen, our City Planner, will have a better understanding of the planning and zoning. He noted that [the City] hasn't had any discussions about lower density and a plan to increase it anywhere else.

Ms. Larkin had concerns about the K12 school and the increased traffic and lighting. She wanted to make sure the lighting is not disruptive to the native species.

Mr. Hoffman said there won't be traffic routed to existing neighborhoods because the proposed school is adjacent to two county roads that will be close by (Sunset Avenue and Main Street). He said that when [the developer] comes back with a more detailed plan, we will talk more about the lighting plan. He did note that the developer will most likely go over a lighting plan for at night if there are special events, which will be addressed when there is more information.

Mr. Schwartz asked what exactly the recommendation means when it says, "Minimize blue light, uplight, and backlight to the extent practicable."

Mr. Hoffman explained that the developers do have the requirements that they need to meet. They provide the City with a photometric plan, and during that time there are discussions to see if there is any flexibility on the types of lights, lighting, and hours while still meeting their safety requirements.

Mr. Hoffman also said that the plans are site dependent. For example, some commercial buildings require lighting 24/7 and some only need lighting between certain hours.

Mr. Schwartz asked if the lighting portion would come back to us as either a concept plan or possibly a preliminary plat.

Mr. Hoffman said that it would most likely come back as a preliminary plat unless something drastically changes with the overall development. The developer would then come back with another concept plan.

Mr. Schwartz asked if it could potentially become a strip center in six months or some other type of use.

Mr. Hoffman said that the new concept plan needs to be institutional or planned residential. He does not believe it can go to commercial zoning.

Mr. Schwartz asked what the requirements will be for the site. Will it remain fallow or will the developers be required to put in any kind of prairie seed, etc.

Mr. Hoffman confirmed that at this point, the City does not have a staging or phasing plan for the developers. They may decide to do the school as phase one with some roads and infrastructure. Depending on what their phasing plan is, [the City] would come up with a plan for temporary stabilization. They would most likely do the mass grading, utilities, stormwater ponding all at once, then come up with a temporary stabilization plan for the areas that are going to sit for however long the staging plan is. Mr. Hoffman used the example of Nature's Refuge North and Watermark developments where they had different staging levels and were required to temporarily stabilize everything. For the areas that were going to be open space, the City had them start establishing that vegetation once it was graded and then everything else was just temporarily stabilized to meet the NPDS requirements for their stormwater management. Most likely it would be a cover crop and some native grasses in those areas until they come in for development.

Mr. Schwartz asked if there was an opportunity or benefit for the City to have some kind of requirement for [the developer] put some native plantings or seed in the easement areas unless they will remain untouched.

Mr. Hoffman said that generally, there are some road and trail connections that are allowed to go over the easements. Some of the grading can take place there but it is dependent on the type of easement. He notes that whoever owns these easements has specific types of vegetation and management that they will allow in those spots. Mr. Hoffman did say that a lot of these easements get sprayed, mowed, cut, and disturbed a lot, so he doesn't anticipate the City being too interested in providing restoration to the area. He said that whatever is disturbed, the City could most likely come up with a plan for some sort of a native vegetation.

Mr. Hoffman mentioned that the recommendations are very high level right now. When the City comes back with a preliminary plat, that is where we would start working with specifics of each different site, such as the number of trees for each site, the landscape plan, floodplain mitigation calculations, open space calculations, and erosion control plans.

Mr. Schwartz makes a motion to approve the Robinson South Concept Plan with the staff recommendations as written. Ms. Berger seconded the motion. Motion passes 6-0.

2. DISCUSSION ITEMS

A. Recycling Intern Updates

Mr. Hoffman presented the Recycling Intern updates.

Mr. Parsons asked if they are keeping track of the compost tonnage.

Mr. Hoffman said they are waiting on the tonnage report from Walters.

Ms. Stevenson asked how the Water Conservation Rebate grant is going.

Mr. Hoffman said that it is going well. The first grant cycle just wrapped up, and there was \$11,000-\$13,000 that came in last quarter. The new grant started on July 1st, 2026. We will start doing the grant reports quarterly in the future. To market the program, the City has been sending out utility bill notifications. If the applications start to slow down, we'll have to look at opening the grant up to some additional appliances.

3. ADJOURN

Ms. Schwartz took a motion to adjourn the meeting at 7:16 p.m. Ms. Stevenson motioned to adjourn. Mr. Schwartz seconded the motion. Motion passes 6-0.

Respectfully submitted,

Jennifer Alderink – Office Specialist

ENVIRONMENTAL BOARD AGENDA ITEM 6A

STAFF ORIGINATOR: Tom Hoffman, Environmental Coordinator

MEETING DATE: August 26, 2026

TOPIC: Zoning Ordinance Text Amendment (ZOTA)–Landscape Ordinance

CASE NUMBER: TA2023-009

APPLICANT: City of Lino Lakes

OWNER: NA

INTRODUCTION

The City of Lino Lakes is evaluating updates to its Landscape Ordinance to improve clarity, consistency, and overall effectiveness while continuing to protect the community's urban tree canopy. Staff began working with HKGi on updates to Section 1007.049: Screening, Landscaping, Buffer Yards, and Tree Preservation in January 2026. These updates were focused on the tree preservation elements within Section 1007.049 and are intended to simplify complicated and conflicting requirements while still maintaining roughly the same level of preservation.

Staff anticipates returning with additional revisions to the buffer and screening provisions at a later date.

Tentative Review Schedule:

Complete Application Date:	N/A
60-Day Deadline:	N/A
Environmental Board Meeting:	May 27, 2026
Park Board Meeting:	N/A
Planning & Zoning Board Meeting:	September 9, 2026
City Council Meeting:	1 st Reading: September 14, 2026 2 nd Reading: September 28, 2026

BACKGROUND

As development continues throughout the City, the ordinance update is intended to simplify preservation requirements and create a more user-friendly process. Proposed updates also include revisions to ordinance definitions and terminology to improve clarity, consistency, and interpretation for property owners, developers, and City staff.

Trees and natural canopy are important components of the community's character and environmental health. Preservation of the existing canopy provides benefits including stormwater management, erosion reduction, and improved air quality. Maintaining tree canopy also supports neighborhood aesthetics and contributes to overall quality of life within the community.

The proposed ordinance updates are intended to balance environmental stewardship with reasonable use of private property. The revisions aim to establish clearer preservation standards and replacement requirements to help mitigate canopy loss when tree removal occurs while also improving predictability and consistency during development review and permitting processes.

ANALYSIS

Summary of Major Changes

1. Tree types are proposed to be defined as follows:
 - Common trees (i.e. aspen, elm), hardwood trees (i.e. birch, cherry, oak, hackberry), and coniferous trees (i.e. pine, spruce)
 - For each of these tree types, significant and specimen trees have also been defined:
 - TREE, SIGNIFICANT. A tree that is structurally sound and healthy and that is either a common tree at least twelve (12) inches DBH, a coniferous tree at least eight (8) inches DBH, or a hardwood tree at least six (6) inches DBH.
 - TREE, SPECIMEN. A tree that is structurally sound and healthy and that is either a common tree at least 30 inches DBH, a coniferous tree at least 18 inches DBH, or a hardwood tree at least 24 inches DBH. A specimen tree is a significant tree.
2. Definitions for Environmentally Sensitive Area (ESAs), natural resource conservation area, natural resource enhancement area, and woodland area have been consolidated into a single definition. The proposed definition reads as follows:
 - ENVIRONMENTALLY SENSITIVE AREA (ESAs). An area that contains native vegetation, natural features, and/or natural resources including:
 - Land within the Rice Creek Watershed District (RCWD) Wetland Management Corridor (WMC);

- The shore impact zone of a public water as defined in Chapter 1102: Shoreland Management Overlay;
 - Within 50 feet of a creek or public ditch;
 - Wetland areas that are non-contiguous to the RCWD WMC extending outward from the wetland boundary 75 feet for management class A (Preserve), 50 feet for management class B (Manage 1), 30 feet for management class C (Manage 2) and class D (Manage 3); and
 - Connecting greenways as described in the 2040 Comprehensive Plan.
3. Changes are proposed to the way that the preservation and mitigation standards are defined and calculated.
- Currently, the preservation and mitigation standards are listed in Table 6 (see below) and vary based on the location of the tree(s) being removed. Applicants must define the Basic Use Area and all Environmentally Sensitive Areas (ESAs) for development before these calculations can be completed.
 - Proposed:
 - The proposed language removes the Basic Use Area language and focuses instead on whether or not trees are located within an ESAs, or outside of it.
 - A percentage of trees may be removed on a site without requiring replacement. Tree removal above this percentage requires replacement. Proposed percentages are:
 - In residential districts: 30% of significant trees in ESAs
 - In residential districts: 50% of significant trees outside of ESAs
 - In mixed use, commercial, industrial, and public/semi-public districts: 50% of significant trees outside of the ESAs and 70% of significant trees outside the ESAs.
 - Tree replacement ratios are proposed to be established as follows:
 - Specimen trees are to be replaced 1 inch for every 1 inch removed
 - Hardwood significant trees are to be replaced 1 inch for every 2 inches removed
 - Common and coniferous significant trees are to be replaced 1 inch for every 4 inches removed
 - Calculations will now be done consistently using caliper inches, rather than number of trees.

Table 6. Tree Preservation and Mitigation Standards

Environmentally Sensitive Area (ESAs) Category	Tree Location: Within Basic Use Area	Tree Location: Not within Basic Use Area	
	Deciduous trees 6 inches DBH and over or evergreen trees between 12 to 20 feet tall	Deciduous trees 6-12 inches DBH or evergreen trees between 12 and 20 feet tall	Deciduous trees over 12 inches DBH or evergreen trees over 20 feet tall
Non-ESAs	No mitigation required	Provide one tree per tree removed	Provide two trees per tree removed
Natural Resource Enhancement Area	Provide one tree per four trees removed	Provide two trees per tree removed	Provide three trees per tree removed
Natural Resource Conservation Area	Provide one tree per two trees removed	Provide two trees per tree removed	Provide three trees per tree removed

4. The information required to be provided on a tree survey has been adjusted to ensure that developers provide consistent information to staff. These adjustments include:
 - A requirement for the developer to provide an electronic table which lists the tree tag, tree species, tree type (common, coniferous, or hardwood), tree size, whether the tree is in the ESAs, whether the tree will be removed or saved, and the tree's condition.
 - Clarification that certain types of trees are exempt from inclusion in the tree survey, including those that are part of a commercial tree operation, those transplanted from the site to another private lot or public space within the City, and those located within the right-of-way of major roadways.
5. Incentives were added to encourage protection of existing tree stands. This includes a provision to allow total replacement inches required to be reduced by 5% for every 0.25 acre of a significant tree stand that is preserved within a development, as well as a credit for preserving specimen trees at a rate of 2 inches of replacement for one inch preserved; up to 50% of the total required inches.
6. Warranty language was added to ensure that all preserved trees and all trees planted as replacement trees are guaranteed to be alive and in good health following the completion of the development.

Additional changes being proposed will be discussed with the Environmental Board. A copy of the original ordinance language is attached with proposed redline updates and comments for review.

Findings of Fact

Staff seeks public and board input as to whether the proposed zoning ordinance amendment meets the following findings of fact.

Per City Code Section 1007.015(4):

(e) The Planning and Zoning Board shall hold the public hearing and consider possible adverse effects of the proposed amendment. Its judgement shall be based upon, but not limited to, the following factors:

1. The proposed action is consistent with the official City Comprehensive Plan.
2. The proposed action is or will be compatible with present and future land uses of the area.
3. The proposed action conforms with all performance standards contained herein.
4. The proposed action can be accommodated with existing public services and will not overburden the city's service capacity.
5. Traffic generation by the proposed action is within capabilities of streets serving the property as described in § [1007.020](#)(4)(d) of this chapter.

ENVIRONMENTAL BOARD RECOMMENDATION

The Environmental Board reviewed the proposed amendments at its May 27, 2026 meeting. Staff reviewed the Board's feedback and incorporated applicable comments into the proposed ordinance revisions.

RECOMMENDATION

Staff seeks the Environmental Board's input regarding the proposed zoning ordinance text amendment and findings of fact.

ATTACHMENTS

1. Draft Ordinance

§ 1007.001 RULES AND DEFINITIONS.

(2) Definitions. The following words and terms, wherever they occur in this chapter shall be interpreted as herein defined:

TREE. Any of the following type of trees, as each is defined herein:

TREE, CONIFEROUS. A woody plant bearing seeds and cones which, at maturity, having foliage on the outermost portion of the branches year round, is at least 12 feet or more in height.

TREE, DECIDUOUS. A woody plant which, having a defined crown, which sheds leaves annually and at maturity, is at least 15 feet or more in height.

TREE, SIGNIFICANT. A tree that is structurally sound and healthy and that is either a common tree at least twelve (12) inches dbh, a coniferous tree at least eight (8) inches dbh, or a hardwood tree at least six (6) inches dbh.

TREE STAND, SIGNIFICANT. A grouping or cluster of significant trees with contiguous crown cover, at least one acre in size, which may be located on one or more parcels.

TREE, SPECIMEN. A tree that is structurally sound and healthy and that is either a common tree at least 30 inches dbh, a coniferous tree at least 18 inches dbh, or a hardwood tree at least 24 inches dbh. A specimen tree is a significant tree.

§ 1007.049 SCREENING, LANDSCAPING, BUFFER YARDS AND TREE PRESERVATION.

(1) Purpose. To establish landscaping and tree preservation standards to promote high quality site development, compatibility of uses, biodiversity, tree preservation, and to enhance the health, safety and general welfare of the residents of the community.

(a) Definitions. For the purpose of the landscaping, screening and tree preservation standards, the following definitions shall apply:

BIODIVERSITY. The variety, distribution and abundance of living organisms in an ecosystem.

DAMAGE. Action or inaction which does not follow good arboriculture practices. Damage may include damage inflicted upon roots by machinery, changing the natural grade above the root system or around the trunk, destruction of the natural shape or any action which causes infection, infestation or decay.

DIAMETER AT BREAST HEIGHT (DBH). The width of a tree, typically measured at four and one-half feet to six feet above the ground. Multi-stem trees are considered one individual tree, and each stem must be measured 4.5 feet above the base of the stem and added together to determine the diameter of the multi-stem tree.

DETENTION AREA. Area of a detention pond from the normal water level and up the side slopes to ten feet offset from the high water level.

DISTURBANCE. Any construction, development, removals, earth movement, clearing or other similar activity.

DRIP LINE. Imaginary line on the ground that is extended straight downward from the outermost edge of the canopy.

ENVIRONMENTALLY SENSITIVE AREA (ESA). An area that contains native vegetation, natural features and/or natural resources:

- (1) Land within the Rice Creek Watershed District (RCWD) Wetland Management Corridor (WMC);
- (2) The shore impact zone of a public water as defined in Chapter 1102 Shoreland Management Overlay;
- (3) Within 50 feet of a creek or public ditch;
- (4) Wetland areas that are non-contiguous to the RCWD WMC extending outward from the wetland boundary 75 feet for management class A (Preserve), 50 feet for management class B (Manage 1), 30 feet for management class C (Manage 2) and class D (Manage 3); and
- (5) Connecting greenways as described in the Comprehensive Plan.

TREE, COMMON. A deciduous tree as defined in the city's Landscaping Guidelines and Technical Requirements. This includes any tree not defined as a hardwood deciduous tree or a coniferous tree.

TREE, HARDWOOD. A deciduous tree as defined in the city's Landscaping Guidelines and Technical Requirements.

FOUNDATION LANDSCAPE ZONE. An area located within fifteen feet of the building.

LARGE SHRUB. Large shrubs have a mature height over six feet.

LARGE TREE. Over story deciduous trees with a mature height of at least 40 feet.

MEDIUM SHRUB. Medium shrubs have a mature height of three to six feet.

MEDIUM TREE. Deciduous trees with a mature height over 18 feet and up to 39 feet.

REMOVAL. Actual removal or effective removal through actions resulting in the death of a tree.

ROOT PROTECTION ZONE. An imaginary circle surrounding the tree trunk with a radius distance of one foot per one inch of tree DBH (e.g., a 20 inch diameter tree has a Root Protection Zone with a radius of 20 feet).

SCREEN. A barrier that hinders sight and, potentially, access.

SMALL SHRUB. Small shrubs have a mature height of less than three feet. Small shrubs are interchangeable with perennials, ornamental grasses and groundcovers to fulfill landscape standards.

SMALL TREE. Understory deciduous trees with a mature height of 18 feet and under.

TREE, UNDESIRABLE. Trees that are dead, diseased, structurally weak, invasive, trees that are hazardous to people, infrastructure or buildings, or other trees as defined in the city's Landscaping Guidelines and Technical Requirements.

VEHICULAR HARDSCAPE. Areas covered with hard surface intended for motor vehicles, including but not limited to off-street loading spaces, parking lots, driveway, drop-offs, and drive through facilities.

WETLAND MANAGEMENT CORRIDOR. A contiguous corridor encompassing high priority wetland resources established by the Rice Creek Watershed District.

(2) Landscaping standards. New residential platted subdivisions, mixed use, commercial, institutional and industrial uses shall be subject to the landscaping standards unless specifically excepted. The landscape standards have been divided into five categories: canopy cover, foundation landscape, open areas landscape, buffer and screen, and boulevard trees. Projects shall comply with the applicable requirements of all five categories.

(3) Canopy cover standards. The purpose of this requirement is to mitigate the effects of vehicular hardscape by establishing tree canopy cover to intercept rainfall, protect pavement from sun deterioration, reduce the heat island effect, and improve aesthetics. Canopy cover requirements do not apply to single-family residential development, multi-family residential development without surface parking other than individual unit driveways and permitted outdoor storage areas in Industrial Districts.

(a) The required minimum canopy coverage for all uses is 40%.

(b) The following equation shall be used to calculate required canopy coverage:

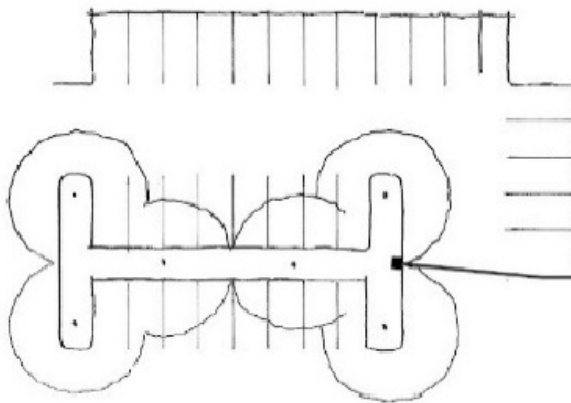
$$\text{Vehicular Hardscape (Square Feet)} \times \text{Canopy Cover Percent} = \text{Required Minimum Canopy Cover (Square Feet)}$$

The total of the assigned canopy coverage values for all the trees in or near the vehicular hardscape must be equal or greater than the required minimum. Pervious pavements are considered 50% hardscape.

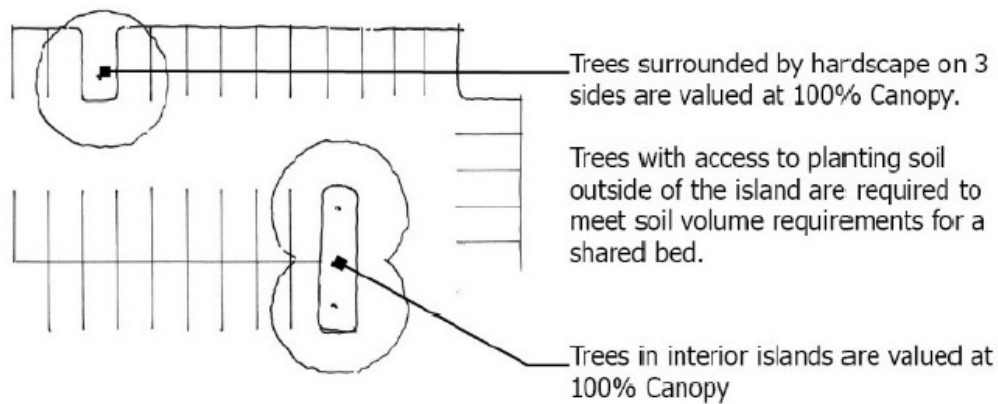
(c) The assigned canopy coverage value of each tree is based on planting location, tree size and anticipated tree canopy size 15 years after planting. The assigned canopy cover value to each deciduous tree is described in the following table and illustrations:

Table 1

<i>Assigned Canopy Cover Value</i>				
Planting Location (for new trees)		Interior parking lot islands	Within less than 7 feet of vehicular hardscape edge	7 to 12 feet from vehicular hardscape edge
Assigned Canopy Coverage Value		100 percent of the canopy square footage	50% of the canopy square footage	25% of the canopy square footage
Square feet (SF) of canopy coverage assigned to each deciduous tree	Large Tree	1200 SF	600 SF	300 SF
	Medium Tree	500 SF	250 SF	125 SF
	Small Tree	250 SF	125 SF	NA
	Existing Tree: 6 - 12" DBH	1900 SF	950 SF	NA
	Existing Tree: 12+” DBH	2850 SF	1425 SF	NA



Large trees in an island containing 3 more trees are given additional Canopy Value. See Canopy Coverage Table.



(d) Existing trees may be used to fulfill canopy coverage, as described in Table 5 division 9 below of this section, when the drip line has proximity to the edge of the hardscape;

(e) Within off-street parking areas of 50 or more spaces, interior irrigated landscaped islands, peninsulas or rain gardens shall be provided at a minimum rate of 100 square feet per 25 surface spaces or fraction thereof. Such islands or peninsulas shall be contained within raised, curbed beds, a minimum of 10' in width on the ends of each row of parking, consistent with other applicable parking lot construction requirements of this ordinance. It is not the intent of this section to relieve a project of the installation of islands or peninsulas that are necessary to promote the safe and efficient flow of traffic, regardless of parking lot size.

(f) No landscaping or screening shall interfere with drive or pedestrian visibility for vehicle entering, circulating or exiting the premises.

(4) Foundation landscape standards. The purpose of these standards is to soften and enhance building architecture, define access points, add color and seasonal interest, and to blend buildings in with the natural environment. Foundation landscaping standards do not apply to single family residential development.

(a) The foundation landscape planting standards are described in the following table:

Table 2

<i>Foundation Landscape Standards</i>		
	Per 100 linear feet (LF) of Building	
Location	Trees	Shrubs
Front and Public/Private Street	2 large	6 large

(b) Lineal footage shall be rounded to the nearest tenth, with a minimum factor of one.

(c) Round all calculations to the nearest whole number of plants.

(d) The required plant materials shall be planted in the foundation landscape zone adjacent to the building face where the requirement applies. The city may allow flexible planting locations where service areas or other constraints make the standards difficult to meet.

(e) Existing trees may be used to fulfill the foundation landscape standards as described in division (9) below of this section.

(f) Smaller landscape materials may be substituted at the following rates:

1 Large Tree = 1.5 Medium or 2 Small Trees

1 Large Shrub = 1.5 Medium or 3 Small Shrubs

(g) One large tree may be substituted for every two large shrubs in lieu of the shrub requirement at the discretion of the city.

(h) The design of landscaping for ground areas under the building roof overhang must take into account the potential effects of runoff from the roof edge.

(i) Trees planted within 30 feet of the building shall be considered within the foundation landscape zone.

(5) Open areas landscape standards. The purpose of these standards is to provide general site beautification and high aesthetic quality with a mix of plant materials in open areas. Open areas include disturbed site areas, that are not located within the foundation landscape zone, vehicular hardscape area or the building footprint and include cul-de-sac islands, boulevard medians, storm water management areas, and common areas in multifamily sites that are not for recreation facilities. Open area landscaping standards do not apply to single family residential lots. Open areas landscaping shall meet the following standards.

(a) The open areas planting standards are described in the following table:

Table 3

Open Areas Landscape Standards		
Per 2500 SF*	Trees	Shrubs
	1 large	2 large
*Rounded to the nearest tenth, with a minimum factor of one.		

(b) Round all calculations to the nearest whole number of plants.

(c) Only land above the normal water level shall be included in the open area calculation for storm water detention areas. Planting shall be located above the normal water level in detention areas. The city may require specific tree species in locations where water levels vary.

(d) Existing trees may be used to fulfill open areas landscape standards as described in Table 5 below of this section.

(e) Smaller landscape materials may be substituted at the following rates:

1 Large Tree = 1.5 Medium or 2 Small Trees

2 Large Shrub = 1.5 Medium or 3 Small Shrubs

(f) One large tree may be substituted for every two large shrubs in lieu of the shrub requirement at the discretion of the city.

(g) Areas that are included in a project-specific natural resource management plan that addresses vegetation are not subject to the open areas landscaping standards.

(6) Buffer and screen standards. The purpose of this requirement is to separate and buffer different land use types, screen roads and parking, and screen utility and loading areas. The location of buffers and screens are listed below, while the width of the buffer yard can be found in the respective zoning districts. Buffers and screens shall meet the following standards:

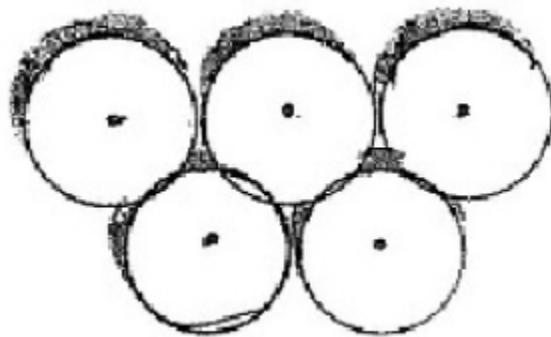
(a) Required screen location, height, and materials are described in the following table:

Table 4

<i>Location</i>	<i>Required Screen Height</i>	<i>Required Screen Materials</i>
Between a parking lot and public right of way or private street where parking projects toward the public right-of-way or private street	30 inches	- Planting screen in compliance with paragraph (6)b. Or - A combination of berm and screen in compliance with division (6)(b) below.
Between residential uses and arterial or collector street	6 Feet	Planting screen in compliance with (6)(b). Or
Between any development and adjacent, less intense, residential land uses (this includes across a street from residential), but not on the side of a use considered to be the front (as determined by the Zoning Administrator)		Wall or fence and plantings shall provide shrub cover for 50% of the wall or fence on the exterior side. Or A combination of berm and screen in compliance with division (6)(b).
Between loading/service area and public view		
Outdoor Storage Yards	10 Feet	A wall or fence of permanent materials and planting shall provide shrub cover for 50% of the wall or fence on the exterior side fence when abutting residential land use.

		At its discretion, the City Council may approve a modification or waiver from these standards where the affected lot line adjoins another industrial property.
--	--	--

(b) All planting screens shall require at a minimum a double row of plants with triangulated spacing (See illustration). Planting plans shall include species which are sized to appropriately screen visibility within five years of planting. Small shrubs shall be planted at a maximum interval of three feet on center; medium shrubs shall be planted at a maximum interval of four feet on center; and large shrubs shall be planted at a maximum interval of six feet on center unless; otherwise authorized by the city.



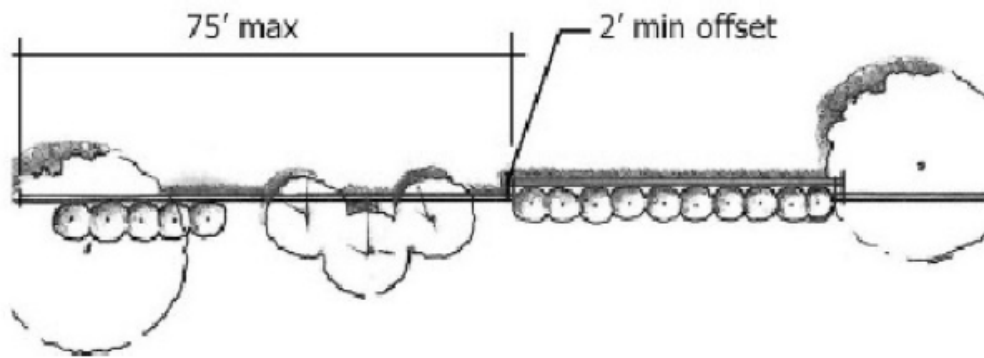
(c) A wall or fence intended to provide a continuous year round screen shall block visibility completely.

(d) In addition to the shrub cover required in the table above, all screens shall be planted with large trees every 50 LF, medium trees every 35 LF, small trees every 25 LF, or some combination thereof, along the length of the screen.

(e) Existing vegetative screens should be left in place unless composed of invasive species or otherwise directed by the city. Existing screens may be enhanced with new plantings to comply with the requirements.

(f) Berms shall be irrigated, have maximum side slopes of 3:1, and have no less than four inches of topsoil.

(g) Permanent walls and fences shall be offset by a minimum of two feet at intervals of 75 feet maximum length for stability and visual relief (See illustration).



(h) Approved permanent wall/fence materials shall include wood, metal, masonry, concrete stone, or other prefabricated and/or sustainable materials. Non-decorative concrete block is prohibited for screening walls. Rock face block or other decorative material is required for masonry walls. Chain link fences with slats are prohibited for screening walls.

- (i) Maintenance of the required buffer strip planting and/or fence shall be the responsibility of the individual property owners or, if applicable, the homeowners association.

(7) Boulevard tree standards.

- (a) Boulevard trees shall be required in all new residential subdivisions.

(b) Boulevard trees are required at the rate of one tree per lot frontage for single family and two-family lots. Townhome and multi-family properties shall provide boulevard trees at a rate of one tree per 70 linear feet of street frontage where property fronts any public or private street.

(c) Boulevard trees shall be planted within the city maintained or as otherwise determined by the City Forester.

- (d) Existing trees may be used to fulfill boulevard tree standards at the city's discretion.

(e) The city may, at its discretion, purchase and install the required boulevard trees. In such case, the city shall collect a standard fee per tree. Said fee shall be established by the City Council and based on the estimated market rate cost to purchase and install trees within the development site.

(8) Sod and ground cover. All areas not otherwise improved in compliance with the approved site plans shall have a minimum depth of four inches of topsoil and be sodded including boulevard areas. Exceptions to these criteria may be approved by the Zoning Administrator as follows:

- (a) Seed may be provided in lieu of sod in any of the following cases:

1. Where the seed is applied to future expansion areas as shown on the approved plans,
or

2. Where the seed is applied adjacent to natural areas or wetlands. Seed mixture shall be approved by the city, or

3. For single family and two family residential properties, proper erosion control measures shall be implemented and maintained until vegetation is established. Sod may be required in areas subject to erosion as determined by the Building Official or City Engineer.

(b) Undisturbed areas containing existing viable natural vegetation which can be maintained free of foreign and noxious plant materials.

(c) Areas designated as open space or future expansion areas properly planted and maintained with native grasses or wild flowers indigenous to Minnesota. Seed mixture shall be approved by the city.

(d) Use of mulch materials such as bark, wood chips, and decorative rock in support of shrubs and foundation plantings.

(e) Native landscapes in compliance with M.S. § 412.925.

(9) General landscaping standards.

(a) All lot areas not used for off-street parking, off-street loading, sidewalks, driveways, building sites, or other requirements shall be landscaped with grass, shrubs, trees or other acceptable vegetation, or treatment as required by this chapter prior to issuance of a certificate of occupancy. Exceptions to this requirement are listed in division (15) below of this section.

(b) Commercial, industrial, public/semi-public, institutional, and multi-family residential uses shall be required to submit a site landscape plan, in compliance with § 1007.020, Site and Building Plan Review, of this chapter, for approval by the city prior to issuance of a building permit.

(c) Desirable existing trees may be used to fulfill canopy cover, foundation landscape, and open areas landscape standards if applicable by placement. Desirable existing trees are valued according to the following table:

Table 5

Existing Tree Value			
Tree Size	deciduous trees under 6 inches DBH or evergreen trees under 12 feet tall	deciduous trees between 6 to 12 inches DBH or evergreen trees between 12 to 20 feet tall	deciduous trees over 12 inches DBH or evergreen trees over 20 feet tall.
Tree Value	1 large tree	2 large trees	3 large trees

(d) Plantings may be grouped if part of an approved landscape plan.

(e) Standards may be met with different sizes of trees and shrubs.

(f) New trees may fulfill canopy coverage, foundation landscape, landscape screen, and open space standards simultaneously if applicable by location.

(g) An existing tree is considered to be removed if the tree trunk is damaged or if more than 30% of the root protection zone area is disturbed during the construction process.

(h) The city may allow flexibility in landscape standards if there are conflicts with solar power, wind power, water harvesting, food production, or other innovative measures proposed for the site.

(i) The landscape plan shall be compared to all applicable CPTED (Crime Prevention Through Environmental Design) standards and reviewed by the Police Department.

(j) Trees and shrubs shall not be planted in the right-of-way without city authorization and shall not be planted in easements without authorization from the holder of the easement.

(k) Turf slopes in excess of three to one (3:1) are prohibited.

(l) Commercial, industrial, multi-family, public/semi-public, and institutional uses shall install irrigation systems to ensure survivability of landscape materials.

(10) Tree Preservation and Replacement

(a) Purpose

The purpose of these standards is to protect valuable trees and stands of vegetation, while not interfering with landowners' reasonable use and development of property. The goal is to preserve higher quality natural areas and natural features, minimize unnecessary loss of

habitat, biodiversity and forest resources, and to replace removed trees in areas where tree cover is most critical.

(b) Applicability

- (1) Unless specifically excepted, tree preservation and mitigation standards apply to all plats, site plans, conditional use permits, interim use permits, grading, building, and other activity that requires a city permit or approval.
- (2) On existing lots with existing buildings where no building or development activity that requires a permit or approval from the city is occurring, the removal of trees is not subject to tree preservation and mitigation standards.

(c) Tree Survey

- (1) A tree survey is required for all property that contains a significant tree.
- (2) The tree survey shall be the basis for the tree preservation plan, tree mitigation standards, and the use of existing trees to fulfill landscape standards.
- (3) The tree survey shall provide the following information for all significant and specimen trees on a site:
 - a. Tree tag
 - b. Tree location
 - c. Root protection zones
 - i. For significant tree stands designated for preservation, the survey should identify the location of the combined root protection zones.
 - d. Whether the tree will be removed or saved
 - e. ESAs on the site
- (4) In addition to the tree survey, the applicant shall also provide an electronic table with the following information:
 - b. Tree tag
 - c. Tree species
 - d. Tree type: common, coniferous, or hardwood
 - e. Tree size (dbh)
 - f. Located in ESA: yes or no
 - g. Tree to be removed or saved

h. Tree condition

- i. Tree is dead or in poor condition. Structural defect such as a crack or split or evidence of advanced disease or predation.
- ii. Tree is in fair to good health. At least 75% full canopy cover with no structural defect.

(5) The following trees are exempt from inclusion in the tree survey:

- a. Trees that are planted as part of a commercial operation including a tree farm, nursery, or orchard.
- b. Trees that are transplanted from the site to another private lot or public space within the City.
- c. Trees that are located within the public right-of-way or public street easement

(6) For a new plat or new planned unit development, the tree survey shall be one plan sheet and the tree preservation plan shall be a separate plan sheet.

(7) For a building permit for a new structure on an existing lot, the tree survey and preservation information may be included on the lot survey typically required for a building permit instead of on a separate document.

(8) For a building permit for an addition to an existing structure, the tree survey information may be provided in an informal medium that sufficiently conveys the information.

(9) At the city's discretion, the tree survey requirement may be waived in circumstances when significant trees will not be removed and are not likely to be impacted by construction based on construction limits shown on the grading plan.

(d) Tree Preservation Plan.

(1) A tree preservation plan shall be required for all soil disturbance activities where tree preservation and mitigation standards apply.

(2) If a natural resource management plan has been approved for the site, the tree preservation plan shall be in compliance with said plan.

(3) A tree preservation plan shall identify:

- a. Environmentally sensitive areas (ESAs).
- b. The disturbance area.
- c. Tree size (dbh), species, condition, location, and root protection zone for all significant trees to be preserved, or
- d. Location and type of tree protection fence.
- e. Staging areas.

- f. Temporary construction access routes when temporary site access is necessary within root protection zone of any tree or tree stand designated for preservation.
 - a. Temporary access shall be routed in a manner that is least disruptive to the tree or tree stand per the approval of the City Forester.
 - b. Temporary access roads shall not exceed 25 feet in width and shall be delineated by snow fencing or safety fencing.
 - c. An eight-inch deep cover of wood chip mulch shall be placed over the temporary access route to cushion the root protection zones from compaction.
 - g. Existing and proposed grading.
 - h. The plan shall show directional felling and trenching to separate root systems prior to bulldozing trees or stumps if necessary to avoid damage to adjacent trees.
 - i. The plan shall be coordinated with utility planning so that utilities are installed in a manner that protects trees intended to be saved.
- (4) At the City's discretion, the tree preservation plan requirement may be waived if the tree survey shows that no significant trees are on the development property or adjacent properties that are near the construction area.

(e) Tree Removal

- (1) Within any rural or residential zoning district or residential PUD, development may remove or disturb up to 30% of the total diameter inches of significant trees within the ESA and up to 50% of the total diameter inches of significant trees outside of the ESA without requiring replacement. Any tree removal beyond this threshold shall require replacement tree planting.
- (2) Within any business, industrial, or non-residential PUD, development may remove or disturb up to 50% of the total diameter inches of significant trees within the ESA and up to 70% of the total diameter inches of significant trees on site without requiring replacement. Any tree removal beyond this threshold shall require replacement tree planting.
- (3) In the case of a development which includes both residential and non-residential uses, tree removal shall be calculated individually for each portion of the development.
- (4) The following are not subject to the tree preservation and mitigation requirements and may be removed without replacement:
 - a. Undesirable trees as defined in the city's Landscaping Guidelines and Technical Requirements.
 - b. Unhealthy trees – those that are listed as dead or in poor condition on the tree survey.

- c. Trees that are not significant or specimen trees.
- d. Areas where trees are being removed for ecological restoration in accordance with a city approved restoration plan.

(f) Tree Replacement

(1) The following calculation procedure shall be used to determine tree replacement requirements for significant trees:

- a. Determine the total number of diameter inches of significant trees within the subject property.
 - i. Calculate the total number of diameter inches of significant trees within any ESAs on the subject property.
 - ii. Calculate the total number of diameter inches of significant trees outside of any ESAs on the subject property.
- b. Calculate the diameter inches of significant trees to be removed and replaced as follows. This calculation should be done both for significant trees located outside of ESAs and significant trees in ESAs.
 - i. Calculate the total diameter of significant trees within the subject property to determine the allowed tree removal limit, or the number of diameter inches allowed to be removed without replacement.
 - ii. Subtract the total diameter inches of significant common trees that will be removed from the allowed tree removal limit.
 - iii. If any diameter inches remain, subtract the total diameter inches of significant coniferous trees that will be removed from the remaining allowed tree removal limit.
 - iv. If any diameter inches remain, subtract the total diameter inches of significant hardwood trees that will be removed from the remaining allowed tree removal limit.
 - v. If any diameter inches remain, subtract the total diameter inches of specimen trees that will be removed from the remaining allowed tree removal limit.
 - vi. If at any point in the above calculation procedure the number of inches to be removed exceeds the allowable removal limit, the remaining inches of removal above this limit shall require replacement.

(2) Tree replacement ratios

- a. All specimen trees shall be replaced at a ratio of one inch replaced for every one inch removed.
- b. Hardwood significant trees shall be replaced at a ratio of one inch replaced for every two inches removed.

- c. Common and coniferous significant trees shall be replaced at a ratio of one inch replaced for every four inches removed.
- d. Trees indicated on the tree preservation plan to be saved but which ultimately are removed or damaged shall be replaced at a ratio of one inch replaced for every one inch removed.

(3) Replacement trees

- a. Replacement trees shall consist of certified nursery stock that meet the American Standard for Nursery Stock and be not less than:
 - i. Two caliper inches for hardwood and common trees
 - ii. Six feet in height for a coniferous tree which shall be equivalent to two caliper inches when determining replacement requirements.
- b. Replacement tree species shall be limited to those identified in the city's Landscaping Guidelines and Technical Requirements.
 - i. Where 20 caliper inches or more must be replaced, no more than 30% of the total caliper inches shall be of the same genus.

(4) Trees used to fulfill replacement requirements may also fulfill the canopy cover, foundation landscape, and open areas landscape standards at the discretion of the city.

(5) Replacement trees shall be planted on site.

(6) The applicant may request to pay a cash fee per tree in lieu of some or all of the trees required for mitigation. At the city's discretion, the city may accept the fee, or a combination of cash payment and tree replacement in lieu of planting replacement trees. Cash fees accepted by the City in lieu of (or in combination with) planting of replacement trees shall be placed in the Tree Preservation Fund and used solely for purchase, planting, and replacement of trees on publicly owned property or the acquisition of forested lands in the City. The city shall maintain a standard fee per tree based on the estimated market rate cost to purchase and install trees as established by the City fee schedule.

(7) Incentives. As an incentive to protect specimen trees or significant tree stands, the city will allow the following:

- a. For every 0.25 acre of a significant tree stand that is preserved within a development site, the total caliper inches of tree replacement that is required may be reduced by 5%.
- b. Specimen Tree Credit. A credit in diameter inches will be applied at a ratio of two inches of replacement for one inch preserved (2:1) up to fifty percent (50%) of the required replacement diameter inches.
- c. Trees and woodlands eligible for the credits provided for by this section shall be approved by the city forester as healthy trees worth saving.

(g) Process

(1) The following shall occur prior to soil disturbance:

- a. The tree preservation plan shall be approved by the city.
- b. Fencing and all tree protection measures shall be installed and inspected by the city.
- c. Erosion control measures shall be installed and inspected by the city.
- d. All required financial securities have been submitted.
- e. Any required development agreement has been approved.

(2) Final inspection. Prior to the issuance of a certificate of occupancy, the project developer, builder, or representative shall certify in writing to the city that all elements of the tree preservation plan and landscaping plan were completed. These must be confirmed by the city. However, the city may issue a certificate of occupancy prior to completion of landscaping in the following situations:

- a. If winter weather will prevent healthy planting practices, a security shall be posted to ensure the remaining planting is accomplished and all planting must be installed by June 15 the following spring.
- b. A certificate of occupancy may be issued by the city on residential lots prior to lawn seeding or sod, provided an escrow security is submitted sufficient to ensure that the work will be completed and the date of completion is specified.

(3) Non-compliance. If the city finds that the property is not in compliance with the approved landscaping plan or tree preservation plan, it shall inform the property owner or, if applicable, the homeowners association, regarding the non-compliance and describe, in writing, the steps needed to bring the property into compliance within a reasonable timeframe, not to exceed 60 calendar days.

(h) Tree Protection Measures

(1) Required Protective Measures. Trees that are to be preserved must be protected by the following methods unless otherwise approved by the city.

- a. Before land clearing, grading, or construction begins, the city approved tree protection fencing or other method shall be installed and maintained around the root protection zone of the trees to be protected. Fencing shall be a minimum of four feet high and of a highly visible material, such as snow fence or polyethylene laminar safety netting, and must be standing throughout the construction process. Cut roots with clean, pruning cuts at the fence line prior to fence installation to avoid later tearing of the roots. Signage shall be installed to instruct workers to stay out of the root protection zone.

- b. Areas where development must encroach upon the root protection zone must be identified on the tree preservation plan in which case the fencing shall be installed at that edge.
- c. Root protection should be provided for significant trees on adjacent lots to protect existing trees and limit impacts on adjacent properties.
- d. No actions that may harm the health of the tree; including but not limited to construction, traffic, compaction, storage of equipment or materials including soil, grading, or concrete washout areas; may occur in the root protection zone.
- e. Trees damaged by construction, or with more than 30% of the roots disturbed, shall be counted as removed and mitigated at applicable rates.
- f. Tree protection measures shall remain in place until all grading and construction activity is terminated.

(i) Security

- (1) Performance security. The city may require performance security to ensure compliance with the requirements of this chapter.
 - a. The performance security shall extend for two years from the date of planting. The form of the security (cash, letter of credit, or other form) shall be determined by the city.
 - b. If after notification of non-compliance the property owner or, if applicable, the homeowners association, fails to achieve the compliance within 60 calendar days, the city may exercise its authority to use the performance security to address compliance.

(j) Warranty

- (1) All trees identified to be preserved shall be guaranteed to be alive, in good health, and of good quality and structural condition for two years from the date of landscaping acceptance.
- (2) All trees planted as replacement trees in accordance with this section shall be guaranteed to be alive, in good health, and of good quality and structural condition for 12 months from the time of planting.
- (3) Warranty replacement
 - a. Any tree identified to be preserved or replacement tree which is not alive or healthy, as determined by the city forester, before the expiration of the warranty period shall be removed and replaced with a new tree meeting the requirements for a replacement tree.
 - b. The warranty replacement tree shall be planted within eight months of removal.

- c. The warranty replacement tree shall be guaranteed to be alive, in good health, and of good quality and structural condition for 12 months from the time of planting.