



AGENDA OF THE JOINT MEETING OF CITY
COUNCIL & PLANNING COMMISSION
CITY OF BIRCHWOOD VILLAGE
WASHINGTON COUNTY, MINNESOTA
December 1, 2015
7:00 P.M.

CALL TO ORDER

APPROVE AGENDA

REGULAR AGENDA

- a. Reviewing City Code 302.045 HEIGHT RESTRICTIONS. The City Council would like to adopt a new code in terms of maximum structure height and make the code language more understanding for all interpreters of the code i.e. Builders, Residents, and Employees.
- b. Reviewing City Code 406 TREE PRESERVATION. The City Council would like to consider the appropriateness of the language and determine whether this subject matter would be better suited as an extension to Land Use Ordinance 302.060 – Vegetative Alterations.
- c. Please view the provided materials (current code, proposed code, examples) and come with ideas for new language for city code.

ADJOURN

b. Dock and Pier Setbacks: Setback requirements from the ordinary high water levels shall not apply to piers and docks. Locations of piers and docks shall be controlled by applicable state and local regulations.

b. Retaining Wall Setbacks: Front, back, side street and other lot line setback requirements shall not apply to retaining walls except that the ordinary high water level setback requirements shall apply to retaining walls.

Added to 3/11/2013 (see 300.010(5) amending ordinance)
5. STRUCTURES IN WETLANDS. No structures are allowed within any wetlands.

“AMENDED BY ORDINANCE 1997-2; August 12, 1997.”

“AMENDED BY ORDINANCE 2003-1; February 12, 2003.”

302.030. HIGH WATER ELEVATIONS. All buildings shall be located such that the lowest floor surface is at a level at least three (3) feet in elevation above the highest known water level of any lake, pond, or wetland adjoining the lot. For three water bodies the high known water levels are:

HIGHEST KNOWN WATER LEVELS (Feet Above Mean Sea Level)

DNR ID #82-167	White Bear Lake	926.7 (NGVD, 1929)
DNR ID #82-134	Lost Lake	927.0 (NGVD, 1929)
DNR ID #82-480W	Hall's Marsh	926.7 (NGVD, 1929)

302.040. STRUCTURE REQUIREMENTS.

1. Each dwelling unit must have a floor area of at least 900 square feet.
2. The maximum square footage of a storage shed is 144 square feet. No person shall place automobiles, vans, or trucks in a storage shed.

302.045 HEIGHT RESTRICTIONS

1. Structure Height Limitation.

No structure height (as defined in subsection 3 below) shall exceed the structure height limitation specified below for each type of structure.

<u>Structure type</u>	<u>Structure Height Limitation</u>
All except unattached accessory	25 feet
Unattached accessory storage shed	12 feet
Unattached accessory garages	18 feet

2. Tallest Point Limitation

ORDINANCE 2015-08-01

**CITY OF BIRCHWOOD VILLAGE
WASHINGTON COUNTY, MINNESOTA**

AN ORDINANCE AMENDING MAXIMUM STRUCTURE HEIGHT IN CITY CODE

WHEREAS, the City of Birchwood Village seeks to promote sound development practices.

NOW, THEREFORE, BE IT ORDAINED that the City Council of the City of Birchwood Village hereby RESCINDS CITY CODE 302.045 in its entirety and hereby adopts the following:

302.045: HEIGHT RESTRICTIONS

1. The maximum height of a structure as calculated by Method A or Method B (see below) must not exceed that listed here:

<u>Structure Type</u>	<u>Maximum Height</u>
<u>All except accessory</u>	<u>30 feet</u>
<u>All accessory</u>	<u>15 feet</u>
<u>Fences</u>	<u>6 feet</u>

Method A: (Applicable to 3-dimensional structures, e.g. houses and garages.) The maximum height of a structure is the difference between the elevation of the highest point of the structure and the average elevation of the structure perimeter at ground level.

Method B: (Applicable to structures which are 1- or 2- dimensional, e.g. towers, fences, and walls.) The maximum height of a structure is the largest difference in elevation between any point on a structure and the ground level directly below that point.

EFFECTIVE DATE: This Ordinance shall be in full force and effect from and after its passage and approval and publication as required by law.

Adopted by the City of Birchwood Village City Council this __ day of _____, 2015

Mary Wingfield
Mayor

Attest:

Mike Anderson
City Administrator-Clerk

Minnesota Statute Section 340A.301 Subdivision 6.b. A brewer taproom may include a restaurant. (Ref. Ord. 12-07-1081, 7/10/12)

Buffer yard. A required portion of an interior side or rear yard setback that shall be maintained with a screen fence and/or landscape material to provide screening from abutting residential properties. (Ref. Ord. 1012, 12/9/03)

Buildable Area. The portion of a lot remaining after required yards have been provided.

Building. Any structure used or intended for supporting or sheltering of any use or occupancy.

Building Height. A distance to be measured from the mean ground level to the top of a flat roof, to the mean distance of the highest gable on a pitched or hip roof, to the deck line of a mansard roof, to the uppermost point on all other roof types.

Building Line. An imaginary line extending from any face of a principal structure, parallel and coincident with that face, extending to and intersecting with the lot line. (Ref. Ord. 704, 11/12/85).

Business. Any establishment, occupation, employment or enterprise where merchandise is manufactured, exhibited or sold, or where services are offered for compensation.

Subd. 3. "C" Definitions

Caliper Inches. The length of a straight line measured through the trunk of a tree twelve (12) inches above the ground. (Ref. Ord. 876, 8/11/92)

Canopy of a Tree. See Tree Canopy. Ref. Ord. 888, 3/9/93)

Carport. A canopy constructed of metal or other materials supported by posts either ornamental or solid and completely open on one (1) or more sides.

Cellar. That portion of a building between floor and ceiling which is wholly or partly below grade and so located that the vertical distance from grade to the floor below is equal to or greater than the vertical distance from grade to ceiling.

Central Business District. A centralized area of commercial and service activities which draw from and serve customers from the entire community or region. For the purpose of this Code, the White Bear Lake ultimate Central Business District boundary shall be that area located east of T.H. 61 between 2nd Street and 7th Street and between Highway 61 and Cook Avenue. The current boundaries are as defined in Section 1303.160, Subd. 1, and on the most current Zoning Map.

Channel. A natural or artificial depression of perceptible extent, with definite bed and banks to confine and conduct water either continuously or periodically.

Church. A building, together with its accessory buildings and use; where persons regularly assemble for religious worship and which building, together with its accessory buildings and uses, is maintained and controlled by a religious body organized to sustain public worship.

City Council. The governing body for the City of White Bear Lake.

Clear-Cutting. The removal of an entire stand of trees.

Len Pratt

From: Samantha Crosby <scrosby@whitebearlake.org>
Sent: Wednesday, October 21, 2015 8:27 AM
To: Len Pratt
Subject: RE: Building Height in WBL

Sure.

Here are the zoning districts that abut the lake:

- R-1 I, Single Family Residential - Island (35 feet)
- R-1 S, Single Family Residential – Shoreland (35 feet)
- R-2, Single Family Residential (35 feet)
- R-7, High Density Residential (35 feet)
- B-4, General Business (36 feet)
- LVMU, Lake Village Mixed Use (36 feet)

☺ Sam

Samantha Crosby
Associate Planner
City of White Bear Lake
Phone: 651-429-8534
Fax: 651-429-8503
4701 Highway 61
White Bear Lake, MN 55110

From: Len Pratt [<mailto:lepratt@pratthomes.com>]
Sent: Tuesday, October 20, 2015 4:42 PM
To: Samantha Crosby
Subject: Re: Building Height in WBL

Sam..how about "on the lake"? Again thanks, Len

Sent from my iPhone

On Oct 20, 2015, at 1:19 PM, Samantha Crosby <scrosby@whitebearlake.org> wrote:

It varies based on zoning district, but generally its 35 or 36 feet.
The "Old White Bear" neighborhood is an exception to that at 30 feet to the peak.

Samantha Crosby
Associate Planner
City of White Bear Lake
Phone: 651-429-8534
Fax: 651-429-8503
4701 Highway 61
White Bear Lake, MN 55110

From: Len Pratt [<mailto:lepratt@pratthomes.com>]
Sent: Tuesday, October 20, 2015 12:52 PM

To: Samantha Crosby
Cc: Roxanne
Subject: Re: Building Height in WBL

Sam..in looking this over what would be the maximum height for the Principal structure? I'm clear (with your help) about how it's measured. Thanks again, Len

Sent from my iPhone

On Oct 20, 2015, at 10:57 AM, Samantha Crosby <scrosby@whitebearlake.org> wrote:

Hi Len,
Great running into you this morning. For what's it worth, here are our regulations regarding building height:

For the Principal Structure, building height is measured from the mean ground level to the top of a flat roof, to the mean distance of the highest gable on a pitched or hip roof, to the deck line of a mansard roof, and to the uppermost point on all other roof types.

(Although not specified by code, if the ground level is uneven the mean obtained by averaging the ground grade around all 4 sides of the building, and the mean of a gable is the half-way point between the peak and the top of wall.)

Sheds are limited to 12 feet to the peak.

Garages if attached may not exceed 1 story or the height of the principal structure.

A story is defined as "that portion of a building including beneath the upper surface of a floor and upper surface of the floor next above, except that the topmost story shall be that portion of a building included between the upper surface of the topmost floor and the ceiling or roof above..." (It goes on about basements, but that doesn't really apply to garages)

Garages if detached shall not exceed 15 feet as measured to the mean of the roofline, or the height of the principal structure, whichever is more restrictive.

The building height limits do not apply to the following: belfries, chimneys or flues, church spires, cooling towers, cupolas and domes which do not contain usable space, elevator penthouses, flag poles, parapet walls extending not more than 3 feet above the limiting height of the building, monuments, water towers, structures for public and semipublic essential services and independent broadcasting and reception antennas or towers not exceeding 45 feet or 10 feet above the roof.

I hope it helps.
~ Sam

Samantha Crosby
Associate Planner
City of White Bear Lake
Phone: 651-429-8534
Fax: 651-429-8503
4701 Highway 61
White Bear Lake, MN 55110

lines; or, when the street grade has not been established, or all the walls of the building are more than 15 feet from the street lines, "grade" means the mean elevation of the ground adjoining the building on all sides.

2-41. GOVERNING BODY shall be taken to mean the organized group of people elected by the voter of any village or township and charged with the duty of exercising authority and administering the laws of the municipality.

2-42. HABITABLE ROOM means a space in a structure for living, sleeping, eating, or cooking. Bathrooms, toilet compartment, closets, halls, storage or utility space, and similar areas, are not considered habitable spaces.

2-43. HEIGHT. For all districts except the Shoreland Management District the vertical distance of a structure measured from the lowest elevation at grade adjacent to the structure to the top of the roof shall not exceed 40 feet, except for water towers approved by the Town Board.

A. Height as applied to a building means the vertical distance from grade to the highest finished roof surface in the case of flat roofs, or to a point at the average height of roofs having a pitch of more than one foot in 4 ½ feet.

B. Height of a building in stories is the vertical distance above a reference datum measured to the highest point of the coping of a flat roof or to the deck line of a mansard roof or to the average height of the highest gable of a pitched or hipped roof. The reference datum shall be selected by either of the following, whichever yields a greater height of a building:

1. The elevation of the highest adjoining ground surface within a five (5) foot horizontal distance of the exterior wall of the building when such ground is not more than ten (10) feet above the lowest grade.

2. An elevation ten (10) feet higher than the lowest grade when the ground surface described in item 1 above is more than ten (10) feet above lowest grade.

2-44. HEIGHT. (Height in Shoreland Management District). For riparian lots in the Shoreland Management District the distance from the highest grade to the average of the highest gable shall be no more than 25 feet. For walkout basements in no event shall the height from the lowest point of a walkout basement to the top of the roof exceed 40 feet.

A. Height as applied to a building means the vertical distance from grade to the highest finished roof surface in the case of flat roofs, or to a point at the average height of roofs having a pitch of more than one foot in 4 ½ feet.

B. Height of a building in stories is the vertical distance above a reference datum measured to the highest point of the coping of a flat roof or to the deck line of a mansard roof or to the average height of the highest gable of a pitched or hipped roof. The reference datum shall be selected by either of the following, whichever yields a greater height of a building:

1. The elevation of the highest adjoining ground surface within a five (5) foot horizontal distance of the exterior wall of the building when such ground is not more than ten (10) feet above the lowest grade.

2. An elevation ten (10) feet higher than the lowest grade when the ground surface described in item 1 above is more than ten (10) feet above lowest grade.

2-45. HEIGHT as applied to a story, means the vertical distance from top to top of two successive tiers of floor beams or finished wood surfaces.

2-46. HEREAFTER means after the time that this code becomes effective.

2-47. HERETOFORE means before the time that this code becomes effective.

2-48. HOLLOW MASONRY UNIT means a masonry unit whose net cross sectional area in any plane parallel to the bearing surface is less than 75 percent of its gross cross sectional area measured in the same plane.

2-49. LIVE LOAD means all loads except dead loads.

2-50. LOT means a portion or parcel of land considered as a unit devoted to a certain use or occupied by a building or a group of buildings that are united by common interest for use and the customary accessories and open spaces belonging to the same. (Refer to Section 35 of the Town Zoning Ordinance.)

2-51. MAIN. The main of any system of horizontal, vertical or continuous piping is that part of such system which receives the wastes,

structures, the minimum front yard setback shall not be less than twenty (20) feet.

7-1.6. ZERO LOT LINE. In all "B" Business Districts, "I" Industrial Districts, and for two family and multiple family dwelling structures in all "R" Residential Districts, the side and/or rear setback requirements may be waived by the Town Board. Pursuant to this provision, a building may be located on a lot so that one or more of its sides rest directly on a lot line. Uses sited with Zero Lot Line setbacks shall comply with all other applicable provisions of this Ordinance.

7-1.7. Each lot shall have access to a public street or way, or to a private way protected by a permanent easement which shall be of width and construction suitable to traffic requirements of the neighborhood in which the property is located. This shall not be construed to include alleys or service ways. Where a private easement is to be used, it shall require special permission by the Town Board.

7-1.8. In all zoning districts, structures shall conform to the minimum side and rear yard setback requirements indicated in Table 7-1, from all wetland as provided in Section 9-5.1.

7-2. DENSITY REGULATIONS. All uses shall comply with the density regulations provided in Table 7-1.

7-3. HEIGHT REGULATIONS.

7-3.1. HEIGHT FOR ALL DISTRICTS EXCEPT THE SHORELAND MANAGEMENT DISTRICT. The vertical distance of a structure measured from the lowest elevation at grade adjacent to the structure to the top of the roof shall not exceed 40 feet, except for water towers approved by the Town Board.

7-3.2. HEIGHT IN SHORELAND MANAGEMENT DISTRICT. For riparian lots in the Shoreland Management District the distance from the highest grade to the average of the highest gable shall be no more than 25 feet. For walkout basements in no event shall the height from the lowest point of a walkout basement to the top of a roof exceed 40 feet.

7-3.3. REPEALED. By amendment to Ordinance 35.

7-3.3. EXCEPTION. No structure may exceed forty (40) feet in Building Height, as defined in Section 3-8, except water towers approved by the Town Board in any district, and except in the "I-1" Light Industrial District, where structures in excess of forty (40) feet in building height, but not exceeding forty-six (46) feet, nor lying in a shoreland management district, will be identified as a Conditional Use. In addition to satisfying all of

the requirements, procedures, standards, and performance provisions established in Section 9-4 – CONDITIONAL USE PERMIT PROCEDURES, structures in excess of forty (40) in the "I-1" District shall satisfy the following requirements:

The part of the structure that exceeds forty (40) feet:

1. Must house an essential part of business operation.
2. Shall not exceed 1,025 square feet in area or 2% of the building, whichever is less.
3. Shall be constructed of non-combustible material.
4. Shall be served by fire sprinklers.

7-3.3(a). No structure may exceed forty (40) feet in building height, as defined in Section 3-8, except water towers approved by the Town Board in any district, and except in the I-1 Light Industrial District where structures in excess of fifty (50) feet in height, but not exceeding seventy-five (75) feet nor lying in a shoreland management district, will be identified as a Conditional Use. In addition to satisfying all of the requirements, procedures, standards and performance provisions established in Section 9-4 – Conditional Use Permit Procedures, structures in excess of fifty (50) feet but no greater than seventy-five (75) feet in the I-1 District shall satisfy the following requirements:

The part of the structure that exceeds fifty (50) feet:

1. Shall not exceed 2% of the total lot area.
2. Shall be located at least 150 feet from all lot lines.
3. Must house essential part of business operations which requires requested height.
4. Shall be open to the ceiling, not divided by floors.
5. Shall not be used for storage space above ground floor.
6. Shall be constructed of non-combustible material.
7. Shall be served by fire sprinklers.
8. Shall not exceed 34,000 square feet, or more than 12% of the area of all buildings on the property.
9. That part of the structure that exceeds 40', but is not greater than 50', shall not exceed 21,000 square feet, and shall be designed to compliment higher portions of the building.
10. The property shall exceed 40 acres in size.

7-3.3(b). No antenna shall be located any higher on an antenna structure as defined in Section 3-2 of Ordinance No. 73, than is reasonably necessary for proper operation of the antenna. In no event shall antenna structures, including the antenna, exceed 165 feet in height above grade.

7-3.3(c). No structure may exceed forty (40) feet in building height, as defined in

Section 3-8, except water towers approved by the Town Board in any district, and except in the I-1, Light Industrial District, where an off-premise advertising sign structure is approved in excess of 40' in height but not exceeding 48' in height, by Conditional Use Permit. In addition to satisfying all of the requirements, procedures, standards, and performance provisions established in Section 9-4 – Conditional Use Permit Procedures, advertising sign structures in excess of 40' in the I-1 District shall satisfy the following requirements:

That part of the structure that exceeds forty (40) feet:

1. Shall be limited to a roof structure covering the sign base and foundation.
2. Shall not exceed 5% of the area of the sign and sign structure.
3. Shall contain no advertising sign.
4. Shall be constructed of non-combustible material.

7-3.4. REPEALED. By amendment to Ordinance 35.

7-4. AIRSPACE ZONES. In order to carry out the purpose of this Ordinance as set forth above, the following airspace zones are hereby established: Primary Zone, Horizontal Zone, Conical Zone, Approach Zone and Transitional Zone, and whose locations and dimensions are as follows:

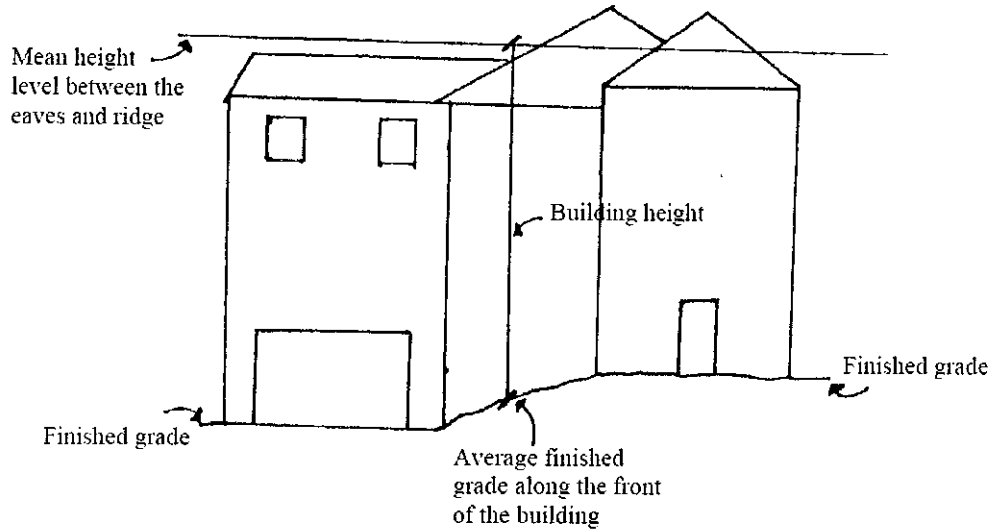
7-4.1(a). PRIMARY ZONE: All that land which lies directly under an imaginary primary surface longitudinally centered on a runway and extending two hundred (200) feet beyond each end of the runway. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline. The width of the primary surface is two hundred fifty (250) feet.

7-4.1(b). HORIZONTAL ZONE: All that land which lies directly under an imaginary horizontal surface one hundred fifty (150) feet above the established airport elevation, the perimeter of which is constructed by swinging arcs of specified radii from the center of each end of the primary surface of each runway and connecting the adjacent arcs by lines tangent to those arcs. The radius of each arc is six thousand (6,000) feet.

7-4.1(c). CONICAL ZONE: All that land which lies directly under an imaginary conical surface extending upward and outward from the periphery of the horizontal surface at a slope of twenty to one (20:1) for a horizontal distance of four thousand (4,000) feet as measured radially outward from

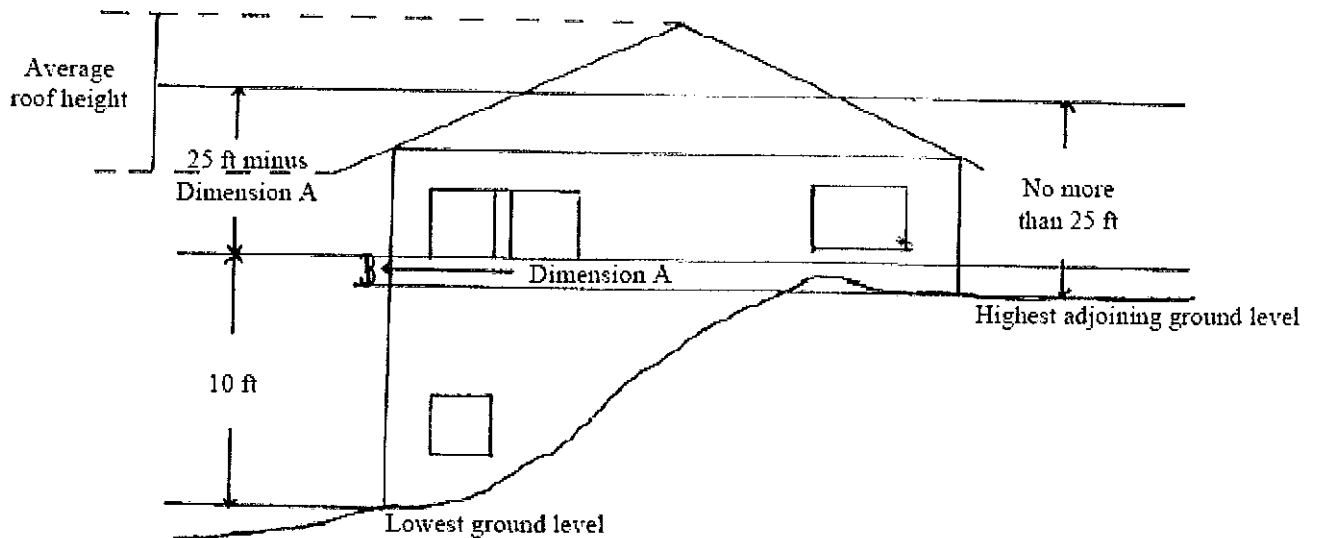
Building Height.

- a. Non-Riparian Lots. For the purpose of determining building height on non – riparian lots, the vertical distance shall be measured from the average elevation of the finished grade along the front of the building to the highest point of the road surface in a flat roof, to the deck line of mansard roofs, and to the mean height level between eaves and ridge of gable, hip, and gambrel roofs.



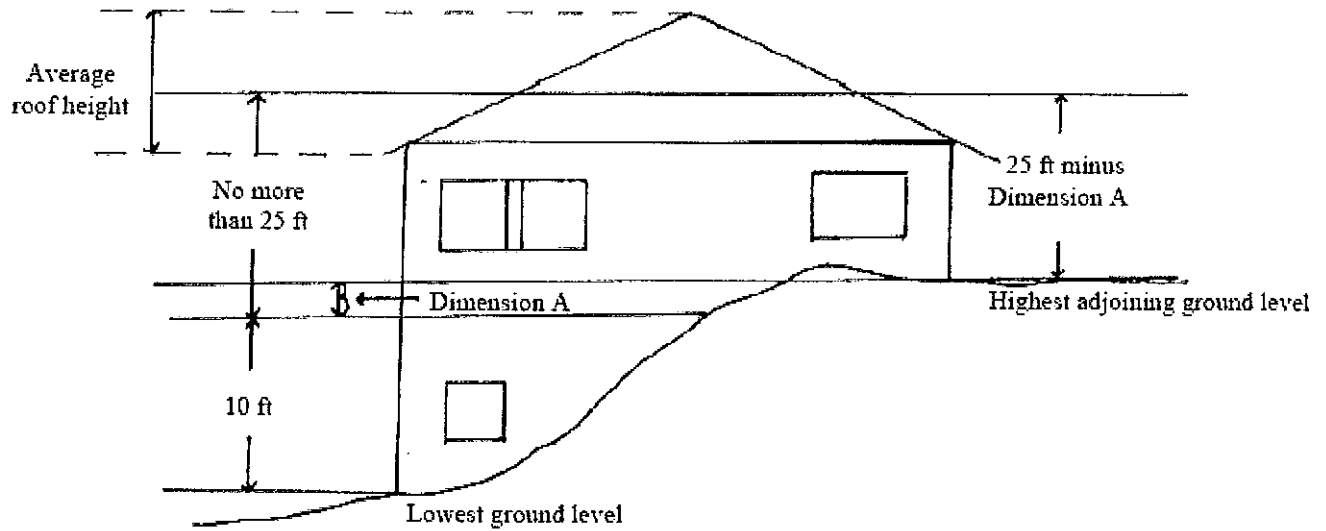
- b. Riparian Lots. For the purpose of determining building height on riparian lots, the height shall be measured as the vertical distance between the highest adjoining ground level at the building, or ten (10) feet above the lowest ground level, whichever is lower, and the highest point of a flat roof, to the deck line of mansard roofs, and to the mean height level between eaves and ridge of gable, hip, and gambrel roofs. (See graphics below)

MEASURE FROM THE RIGHT SIDE



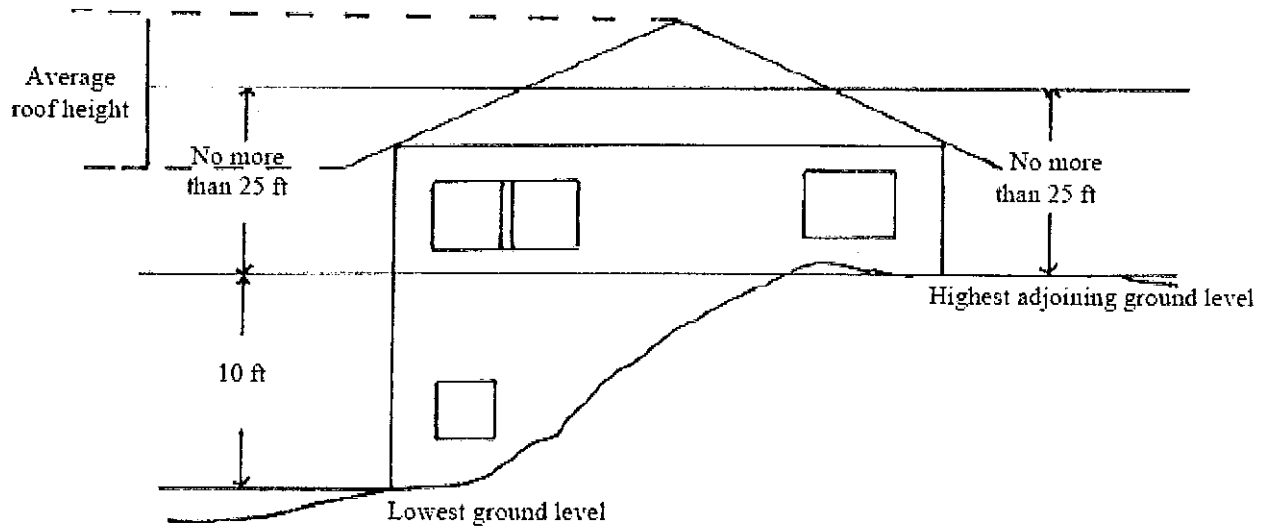
This drawing shows that ten (10) feet above the lowest ground level is higher than the highest adjoining ground level. The height of the roof must be measured from the right side of the residence.

MEASURE FROM THE LEFT SIDE



This drawing shows the lowest ground levels ten feet measurement being below the highest adjoining ground level. Thus, the height of the residence must be measured from the left side.

MEASURE FROM EITHER SIDE



This drawing shows ten (10) feet above the lowest ground level being equal to the highest adjoining ground level at the building. Measure the height of the building from either side.

Building Official or Building Inspector. The Building Official or Building Inspector shall be the Building Code Enforcement as specified in Chapter 2 of the City Code of the City of Mahtomedi.

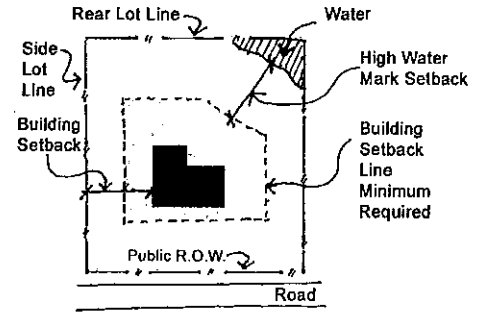
Building Permit. A permit required from the responsible governmental agency before any site work, construction, or alteration to any structures can be started.

Building Setback Line, Minimum Required. A line within a lot parallel to a public right-of-way line, a side or rear lot line, a bluff line, delineated wetland or an ordinary high water mark or line, behind which buildings or structures must be placed.

Building Supply Store. See 'Home Improvement Center'.

Business. The purchase, sale, barter, or exchange of goods, wares or merchandise, or the maintenance or operation of offices, recreational or amusement enterprise, or the furnishing of services for compensation.

Butt Lot. A lot at the end of a block and located between two corner lots.



C

Carport. An automobile shelter having one (1) or more sides open.

Car Wash. An establishment providing washing, waxing, or cleaning of light motor vehicles, including access and queuing lanes.

Catering Service. An establishment providing the processing, assembly, and packaging of food into servings for consumption off-premises without provision for onsite pickup or consumption. This term includes, but is not limited to, the preparation of meals by a catering business or by a nonprofit organization operating a meal program.

Cease and Desist. A court issued order to halt the activity that is being conducted without a permit or in violation of this Ordinance.

Cellar. A portion of a building located partly or wholly underground and having half or more than half its clean floor to ceiling height below grade.

Cemetery. A lot or tract of land used or intended to be used for the burial of the dead including columbariums, crematories, mausoleums and mortuaries when operated with the boundaries of such cemetery.

Certificate of Survey. A legal document depicting property information that is signed by a registered land surveyor under Minnesota state laws.

Certificate of Occupancy. A certificate issued by the Building Official authorizing the use or occupancy of a building or structure.

Chair. The Chair of the Planning Commission or other body as the context requires.

City. The incorporated City of Mahtomedi, State of Minnesota.

City Council. The governing body of the City of Mahtomedi. (See *Chapter 2*)

Civic Use. Community center, public library, public museum, public art gallery, public recreation, post office, fire station, public botanical garden, and similar public uses.

Clinic. An establishment where patients, who are not lodged overnight, are admitted for examination and treatment by one (1) or more of a group of physicians, medical specialists or dentists, or a combination thereof, practicing together.

Club or Association. A nonprofit association of persons who are bona fide members, paying regular dues, and are organized for some common purpose, but not including a group of organized solely or primarily to render a service customarily carried on as a commercial enterprise.

College. An educational institution authorized by the State of Minnesota to award baccalaureate or higher degrees, or any campus of the State of Minnesota vocational, technical, and adult education system. This term

Dellwood

Jack Kramer

From: Richard Copeland <rwcopeland@qwest.net>
Sent: Friday, October 23, 2015 8:56 AM
To: 'Jack Kramer'; 'Dellwood City Hall'
Subject: Building Height

RE: Building Height

Dear Jack and Joanne:

At the present time, the City Ordinance provides for a maximum building height of 35 feet.

DNR has a standard ordinance for shoreland areas of 25 feet. Dellwood has objected to this restriction and DNR has informally agreed to Dellwood's version.

However, a formal exception from the Statewide Standard has not been issued by DNR. The City will be following up on this and I am confident the exception will be granted.

You can have Jack Kramer call me about this with more information.

Very truly yours,
Richard W. Copeland
4524 Highway 61
White Bear Lake, MN 55110
(651) 429-3323 (office)
(651) 429-2387 (fax)

33. Height of Building. Height of Building means the vertical distance between the highest adjoining ground level at the building or ten feet above the lowest ground level, whichever is lower, and the highest point of a flat roof or average height of the highest gable of a pitched or hipped roof (chimney excluded).

34. Home Occupation. Any gainful occupation or profession engaged in by the occupant of a dwelling at or from the dwelling unit.

35. Impervious Surface. Hard cover by roof tops, roads, parking areas, driveways, and/or other land alteration of a similar nature, rendering the land in such a condition that precipitation runs off rapidly with no or little infiltration.

36. Intensive Vegetation Clearing. Intensive Vegetation Clearing means the complete removal of trees or shrubs in a contiguous patch, strip, row or block.

37. Kennel. Any place where four (4) or more of any single type of domestic pets, over four (4) months of age are owned, boarded, bred or kept.

38. Lot. Lot means a parcel of land designated by plan, metes and bounds, registered land survey, auditors plat, or other accepted means.

39. Lot Area. The area of a horizontal plane within the lot lines lying above the ordinary high water mark.

40. Lot Depth. The shortest horizontal distance between the front lot line and rear lot line measured from a ninety (90) degree angle from the street right-of-way within the lot boundaries.

41. Lot-Frontage. The front of a lot shall be, for purposes of complying with this Ordinance, the boundary abutting a public right-of-way or access road having the least width.

42. Lot-Line. A property boundary line of any lot held in single or separate ownership; except that where any portion of the lot extends into the abutting street, the lot line shall be deemed to be the street right-of-way. Where any portion of a lot adjoins a lake, the lot line shall be deemed to be the normal high water mark.

43. Lot of Record. The lot which is part of a subdivision, the plat of which has been recorded in the Office of the Recorder of Washington County, or a lot described by metes and bounds; the deed to which has been recorded in the Office of the Recorder of Washington County.

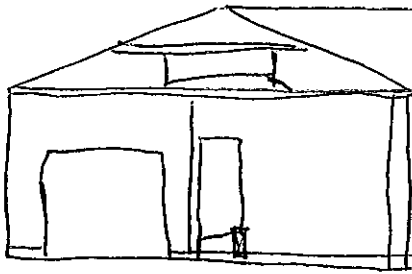
DRAFT

City of Birchwood Village, Minnesota

Building Height Worksheet

Building Location: _____

Legal: _____



Ridge Height: _____

First Floor Elevation: _____

Bench Mark: _____

Top of Foundation: _____

Mean Ground Level: _____

Description of permanent bench mark: _____

Permanent Bench Mark: _____

Calculated Height of Building _____

Mean Ground Level = _____

A = _____

B = _____

C = _____

D = _____

Note: Attach map showing bench mark and elevations of all points used to determine mean ground level. Reference map attachment.

Building Height

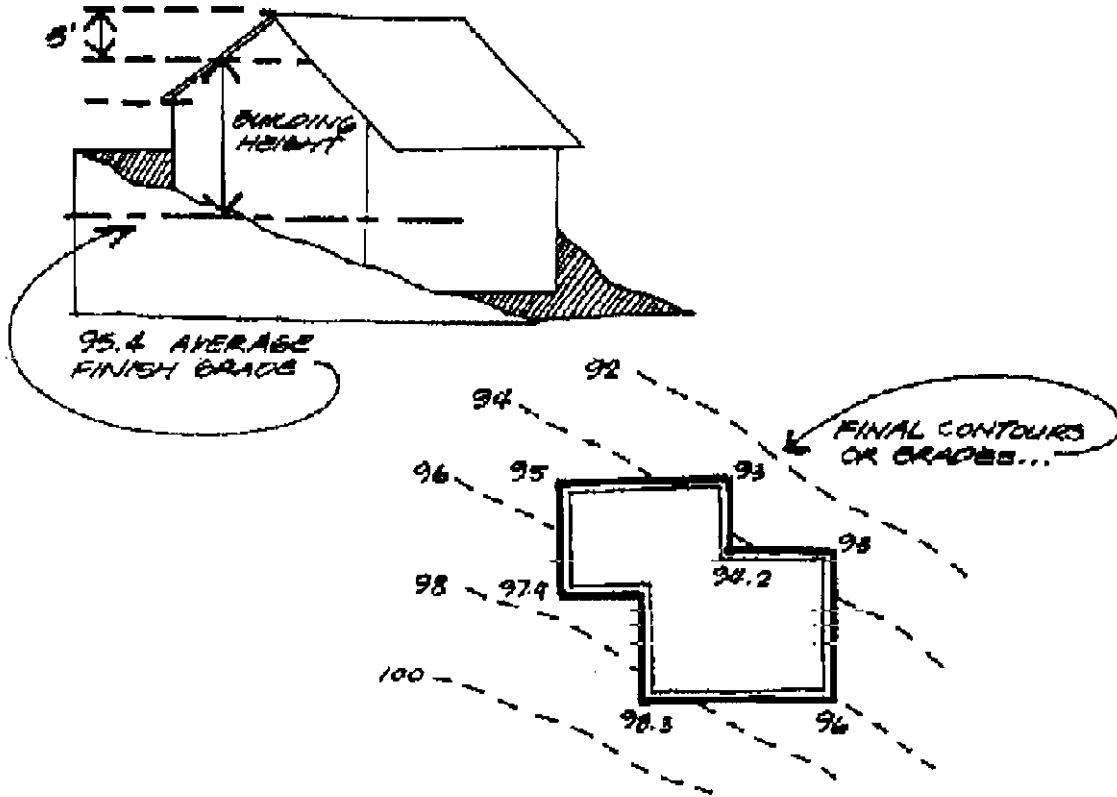
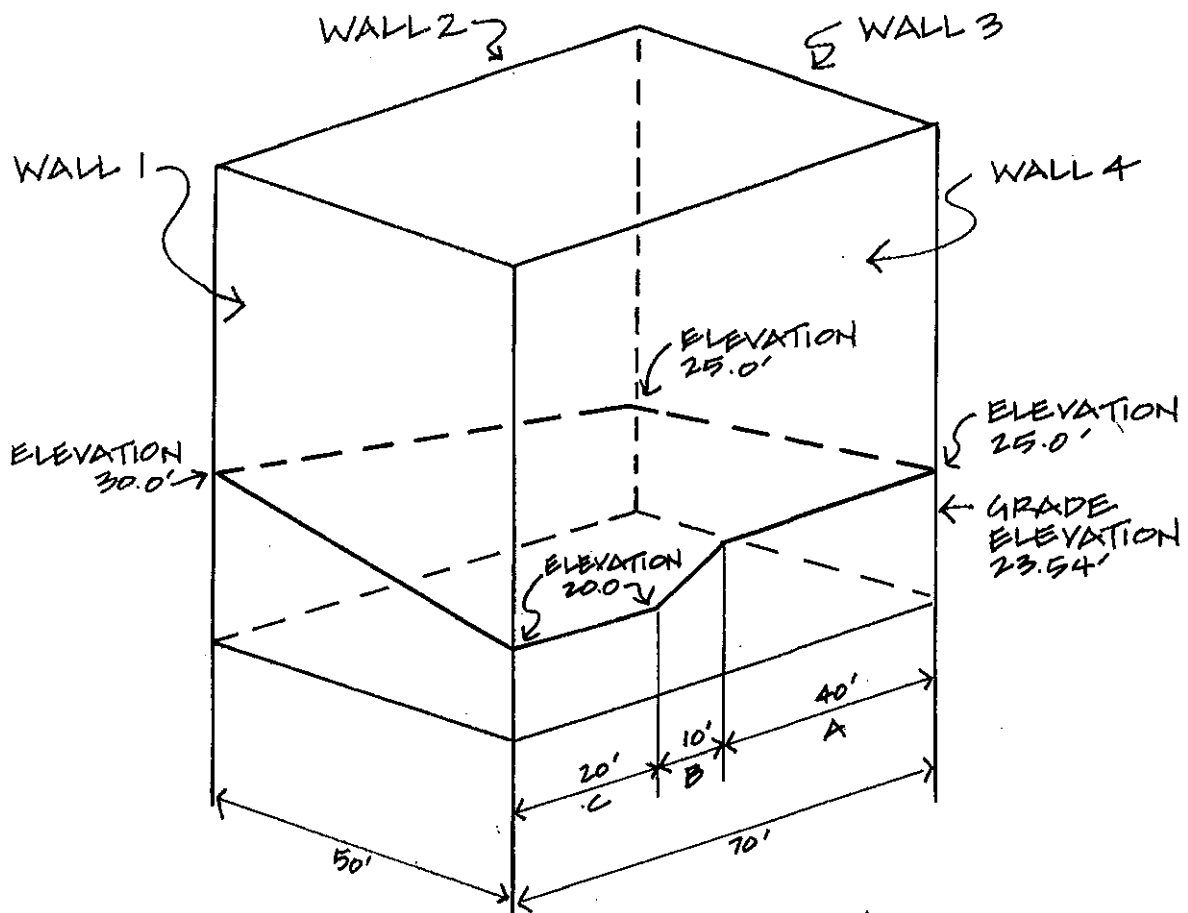


ILLUSTRATION 16: GRADE, GRADE ELEVATION



GRADE = AVERAGE GROUND ELEVATION

WALL 1 $\frac{20.0 + 30.0}{2} \times 50 = 1250$

WALL 2 $\frac{30.0 + 25.0}{2} \times 70 = 1925$

WALL 3 $\frac{25.0 + 25.0}{2} \times 50 = 1250$

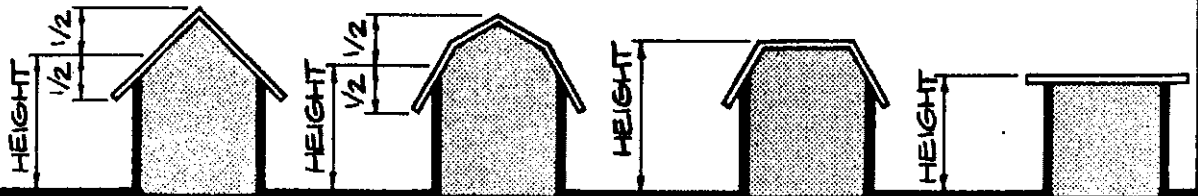
WALL 4 A - $25.0 \times 40 = 1000$

B - $\frac{25.0 + 20.0}{2} \times 10 = 225$

C - $20.0 \times \frac{20}{240} = \frac{400}{5650}$

GRADE = $\frac{5650}{240} = 23.54$

Building Height



HIP or GABLE

GAMBREL

MANSARD

FLAT

- References: II C, III B, IV, VI, IX.
- This is an interpretive aid only and is not part of the regulations.

Current Code Language in Birchwood

403. TREE DISEASES

403.010. DECLARATION OF POLICY. The Council has determined that the health of the elm, oak, and ash trees within the municipal limits are threatened by fatal diseases known as Dutch elm disease, oak wilt, and from the emerald ash borer and the two-lined chestnut borer. . It has further been determined that the loss of elm and oak trees growing upon private and public property would substantially depreciate the value of property within the City and impair the safety, good order, general welfare and convenience of the public. It is declared to be the intention of the Council to control and prevent the spread of these diseases and these pests, and this article is enacted for that purpose.

403.020. CONTROL AREA DESIGNATED. For the purposes of this ordinance, the control area consists of the entire City of Birchwood Village.

403.030. APPOINTMENT OF A TREE INSPECTOR. The Council shall at least annually designate a tree inspector or tree inspectors, certified by the Minnesota Commissioner of Agriculture, who shall have the responsibilities set forth in this ordinance to administer the Dutch elm disease and oak wilt control programs and to control the infestation of the emerald ash borer and the two-lined chestnut borer within the City.

403.040. NUISANCES DECLARED. The following are declared to be public nuisances whenever and wherever they may be found within the City:

1. Elms. Any standing or living elm tree, (including but not limited to American elm, red elm, rock elm, Siberian elm, and Chinese elm), or part thereof, determined by the City tree inspector to be infected to any degree with the Dutch elm disease fungus, *Ceratocystis ulmi* (Busiman) Moreau.

Any bark intact dead or dying elm tree, or part thereof, or any elm wood including branches (greater than 2" in diameter at the largest end), logs, stumps, or firewood with bark intact that poses a threat, (as determined by the City tree inspector), of harboring or acting as a breeding site for the beetles, *Scolytus multistriatus* (Eichh) or *Hylurgopinus rufipes* (Marsch).

2. Oaks. Any bark intact living or standing tree or part thereof, in the red oak group (including, but not limited to, red oak, pin oak, northern pin oak, scarlet oak and black oak) infected to any degree, (as determined by the City tree inspector), with the oak wilt fungus *Ceratocystis fagacearum* (Bretz) Hunt, and has been determined (by the City tree inspector) to pose a threat of overland transmission of the fungus to other oak trees. This may also include any bark intact dead or dying red oak group oak tree, or part thereof, that has died of oak wilt, (as determined by the City tree inspector), including branches (greater than 2" in diameter at the largest end), logs, stumps, or firewood that is determined by the City tree inspector to pose a threat of overland transmission of the oak wilt fungus to other oak trees.

Any bark intact living or standing tree, or part thereof, in the red oak group described above that is infected to any degree with the two-lined chestnut borer (*Agrius bilineatus*) that has been determined by the City tree inspector to pose a threat of overland transmission of the borer. This may also include any bark intact dead or dying red oak group oak tree, or part thereof, that has died from invasion of the two-lined chestnut borer as determined by the tree inspector.

3. Ash. The provisions of paragraph 2 and 3 above shall also apply whenever the tree inspector shall find a living or standing ash tree or bark intact or dying ash tree, or part thereof, that has been infested with the emerald ash borer (*Argilus planipennis* or *Agrius marcopol*).

403.050. ABATEMENT. It is unlawful for any person to permit a public nuisance as defined in 403.040 to remain on any premises owned or controlled by that person within the designated control areas of the City. Such nuisances may be abated in the manner prescribed by this chapter.

403.060. INSPECTION AND INVESTIGATION.

1. Annual Inspection.

a. Dutch Elm disease: The tree inspector shall inspect all premises and places within the designated Dutch elm disease control area of the City at least once during the growing season, by August 1st, to determine whether any condition described in 403.040 (1) exists.

b. Elm wood: The tree inspector shall inspect all premises and places within the designated Dutch elm disease control area of the City by August 1st, of each year for elm wood or logs/stumps that meet any of the conditions described in 403.040 (1) and require by August 1st, removal or debarking of all wood logs, and stumps to be retained.

c. Oaks: The tree inspector shall inspect all premises and places within the designated control area of the City as many times as practical or necessary to determine whether any condition described in 403.040 (2) exists.

d. Ash Trees. The tree inspector shall inspect all premises and places within the City of Birchwood as many times as practical or necessary to determine whether any condition described in 403.040 (3) exists.

2. Entry on Private Premises: The tree inspector so designated by the Council may enter upon private premises at any reasonable time for the purpose of carrying out the duties assigned to him/her under this chapter.

3. Diagnosis: Whenever possible, diagnosis shall be based upon accepted field symptoms. The City tree inspector shall, upon finding indications of oak wilt or Dutch

elm disease or the two-lined chestnut borer or the emerald ash borer, take such steps for diagnosis as may be appropriate. These steps may include analysis of twig and stem samples from elm, oak, and ash trees or parts thereof suspected of being infected. The tree inspector may submit such samples to an approved laboratory upon approval of the Council. Laboratory isolation and confirmation of the presence of the fungi shall be done by the Department of Agriculture's disease laboratory, or other laboratories capable of performing such services approved by the Minnesota Commissioner of Agriculture.

403.070. INTERFERENCE PROHIBITED. It is unlawful for any person to prevent, delay or interfere with the City tree inspector or his/her agents while they are engaged in the performance of duties imposed by this ordinance.

403.080. PROCEDURE FOR ABATEMENT AND REMOVAL.

1. Notice to Landowner. Whenever it is found with reasonable certainty that a tree has oak wilt or Dutch elm disease, or is infected with the two-lined chestnut borer or the emerald ash borer, the tree inspector shall proceed as follows:

(a) If the tree inspector finds that there is potential for infection of other oak or elm trees, the owner of the property on which the nuisance is found, shall be notified by certified mail, addressed to said owner at his/her last known address. The tree inspector will specify on the notice a reasonable date before which the nuisance must be abated. The tree inspector shall identify in the notice the abatement action to be taken.

(b) The tree inspector shall immediately report said action to the Council and, after the expiration of the time limited by said notice, the tree inspector may proceed to abate the nuisance as herein provided.

(c) The cost of such abatement, plus a \$50 administrative fee, shall be assessed against the owner of the property involved, or against the property itself.

403.081. ABATEMENT ACTIONS.

1. High Risk Elm Trees: High risk elm trees shall be those trees that are dead, barren, or have extensive wilt (30 percent or more of the tree is wilted). Such trees shall be identified and marked prior to July 1st. These high risk trees shall be removed within 20 days of notification of the property owner.

2. Oak Wilt: All oak trees within the designated oak wilt control area of the City diagnosed as having oak wilt should be isolated from neighboring healthy oak trees of the same species by chemical or mechanical disruption of common root systems to prevent root graft transmission of the oak wilt fungus.

To control the overland spread of oak wilt, the pruning of oaks shall be avoided during the most susceptible period of infection, from April 15 until July 1. If wounding is

unavoidable during this period, as in the aftermath of a storm or when the tree interferes with utility lines, a tree wound dressing shall be applied immediately.

a. Red Oaks. To prevent the oak wilt fungus from producing spores and to prevent the overland spread of this fungus, any bark intact diseased material resulting from any tree of the red oak group, that wilted from oak wilt in July and August of one year shall be declared hazardous for the spring of the following year. This hazardous spring period shall be defined as April 15 to July 1 and diseased material shall be determined such by the City tree inspector.

Any hazardous oak wood to be used as fuel wood or to be salvaged or other purposes must be debarked, dried, or else completely covered by heavy plastic (4 mil or greater) from April 15 until July 1 of the year following the appearance of oak wilt. After this time there is no danger of spore production and the wood does not need to be covered.

Any branch greater than 2" in diameter of the red oak group determined to be hazardous and not to be salvaged shall be disposed of by burning, chipping, or removal to an authorized dump site prior to April 15 of the year following the appearance of symptoms. Dead standing red oaks that have advanced beyond the potential for spore production need not be removed except where they constitute a hazard to life and/or property. The City tree inspector will advise accordingly.

Stumps of trees of the red oak group removed due to oak wilt shall be completely covered with at least 2" of compacted soil, removed, or debarked to the ground line to eliminate all possibilities of spore formation and overland disease spread.

Any hazardous material not dealt with in the above described manner must be removed within 20 days of notification.

b. White Oaks: Trees of the white oak group (i.e. white oak, bur oak, bicolor oak) diagnosed as having oak wilt should be isolated by root graft disruption as previously stated. Diseased material originating from such trees will rarely ever support spore formation, and salvaged material therefore will not require special treatment to prevent overland spread. Standing trees of this group showing early symptoms of oak will may sometimes be saved by removing affected branches. The City tree inspector will advise accordingly.

3. Two-lined Chestnut Borer. The tree inspector shall identify such actions as the inspector deems necessary to prevent the spread of the two-lined chestnut borer whenever the two-lined chestnut borer is discovered in Birchwood.

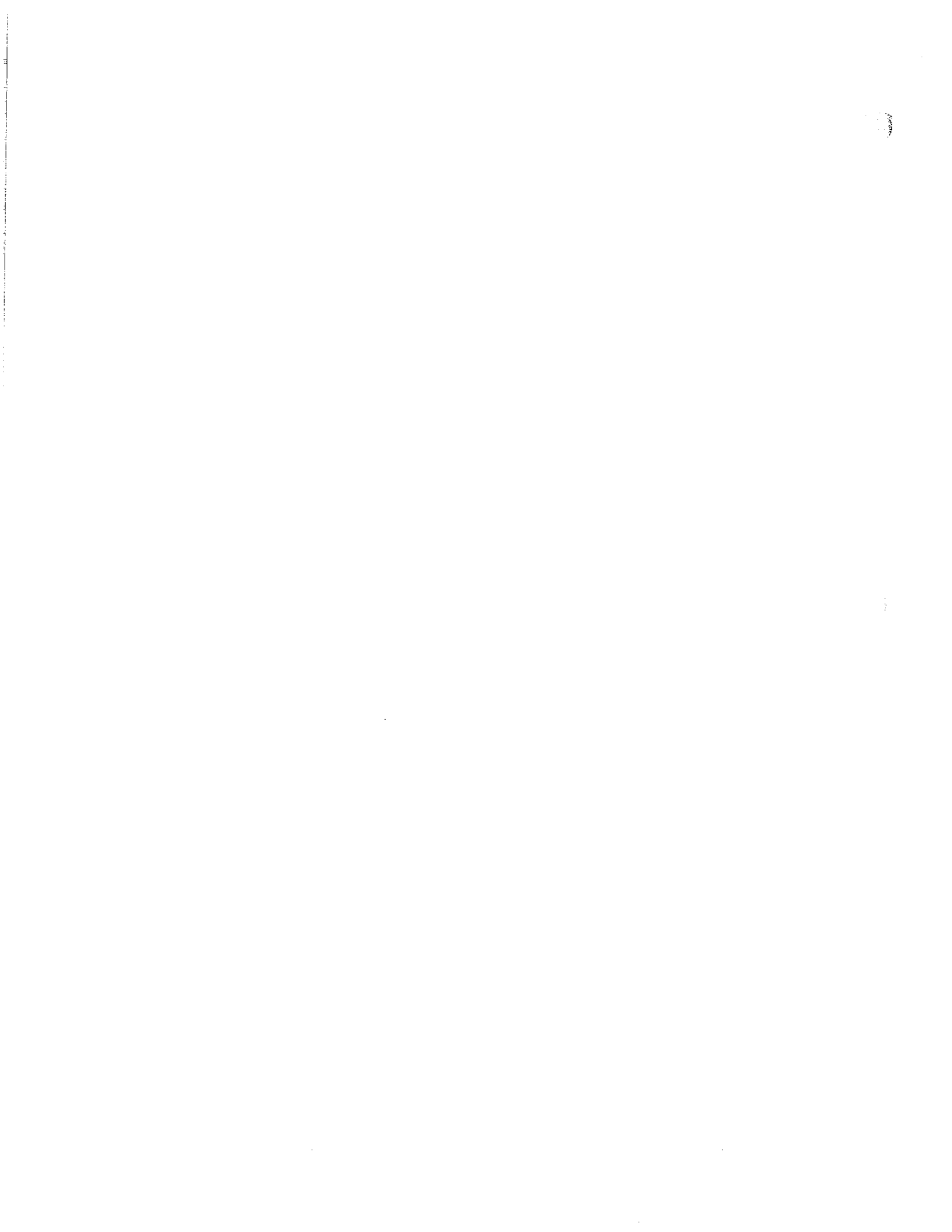
4. Emerald Ash Borer. The tree inspector shall identify such actions as the inspector deems necessary to prevent the spread of the emerald ash borer whenever the emerald ash borer is discovered in Birchwood.

403.090. ROOT GRAFT DISRUPTION (BARRIERS) AT PROPERTY BOUNDARIES. Because oak wilt is a community problem and because oak wilt control may benefit an entire neighborhood, the tree inspector shall recommend and encourage neighborhood participation and cooperation, including cost sharing, in root graft disruption and other control efforts, especially where oak wilt is in danger of spreading across property boundaries.

403.100. TRANSPORTING ELM AND OAK WOOD PROHIBITED. It is unlawful for any person to transport within the City any bark intact elm wood, or wood from the red oak group that is determined to be hazardous, or any oak infected with the chestnut borer, or any ash wood infected with the emerald ash borer without having first obtained a permit from the City tree inspector to do so. The City tree inspector shall grant such permits only when such permission does not interfere with the provisions of this ordinance.

403.110 PENALTY. Any person, firm or corporation who violates the conditions of this ordinance is guilty of a misdemeanor.

“AMENDED BY ORDINANCE 2011-02; MAY 10, 2011”



**CITY OF BIRCHWOOD VILLAGE, WASHINGTON COUNTY,
MINNESOTA**

ORDINANCE NO. 406

**AN ORDINANCE REGULATING TREE AND NATURAL BARRIER PROTECTION
AND PRESERVATION AND PROVIDING PENALTIES FOR VIOLATION THEREOF.**

The City of Birchwood Village does ordain as follows:

406.010 - Title

This ordinance shall be known, cited and referred to as the **TREE AND NATURAL BARRIER PROTECTION ORDINANCE**, except as referred to herein, where it shall be known as "this ordinance".

406.20 - Purpose

1. The purpose of this Ordinance is to preserve and protect the unique natural environment of the City of Birchwood Village and provide for minimal tree loss and mitigation of tree removal in wooded areas of the City. It also provides for protection of natural barriers provided by trees or shrubs along the borders of our city, along major roads and between differing land uses.
2. Tree cover and natural barriers are beneficial in terms of aesthetics, screening, cooling, wildlife habitat protection, watershed control, air quality enhancements, erosion control and preservation and enhancement of property values. Land alteration that causes destruction of trees or shrubs diminishes and impairs the public health, safety and general welfare. The intention of this Ordinance is to provide regulations relating to the cutting and removal of trees in areas where the natural vegetation or topography are to be altered.
3. No clear cutting of significant woodland areas shall be permitted except pursuant to a duly authorized and approved permit or development plan consistent with the provisions of this ordinance.

406.030 - Separability

1. It is the intention of the City Council that the several provisions of this Ordinance are separable and that if any court of competent jurisdiction shall adjudge any provisions of this Ordinance or application thereof to be invalid, such judgment shall not affect any other provisions or this Ordinance not specifically included in such judgment.

406.040 - Interaction Between This Ordinance And Other Ordinances

1. This Ordinance is written to complement the City of Birchwood Village Zoning Ordinance and the City of Birchwood Village Subdivision Ordinance. In the event of conflicting requirements imposed by this Ordinance or by other Ordinances of the City of Birchwood Village, the more restrictive provisions shall apply.

406.050 - Wording Of This Ordinance

1. Words used in the present tense include the past and future tense; the singular includes the

plural; and the plural includes the singular. The word "shall" is mandatory and the "may" is permissive. The masculine gender includes the feminine.

406.60 - Definitions

1. **Applicant** The person or entity proposing land alteration as described in this Ordinance.
2. **City Council** The City of Birchwood Village City Council.
3. **City Designee** A forester or designee appointed by the City of Birchwood Village.
4. **Coniferous/Evergreen Tree** A woody plant which, at maturity, is at least thirty (30') feet in height, with a single trunk, having foliage on the outermost portion of the branches year round.
5. **Deciduous Tree** A woody plant which, at maturity, is at least twenty (20') feet in height, with a single trunk, having a defined crown which loses leaves annually.
6. **Land Alteration** Any modification, tree cutting or removal, grading, clearing, filling or other change to any parcel of land including a woodland, shore land or natural barrier within a five (5) year period which may initially or cumulatively result in:
 - a. The movement of more than four-hundred (400) cubic yards of earth where significant trees are present; or
 - b. Any alteration of land of:
 - i. more than one (1') foot from the natural contour of the ground; or
 - ii. any contiguous four-hundred fifty (450 sf) square feet of ground where significant trees are located; or
 - iii. any cutting, removal or killing of trees equal to or greater than twenty (20%) percent of the significant trees on any parcel of land; or
 - c. Any cutting, removal or killing of trees equal to or greater than twenty (20%) percent of the significant trees on any parcel of land; or
 - d. Any destruction or disruption of tree cover equal to or greater than twenty-five (25%) percent of the total tree cover on any parcel of land; or
 - e. Any changes in the Natural Barriers provided by trees or shrubs along the borders of the City, along major roads, or between differing land uses, or
 - f. Any intensive vegetation clearance (clear cutting) within a shore land area or on steep slopes, or
 - g. Any other significant change in the natural character or topography of the land.

- h. **Natural Barrier** Screening provided by a tree or shrubbery barrier that acts as a visual or noise barrier from roads, railroads and differing land uses, said barrier not to exceed thirty (30') feet in barrier depth. When a Natural Barrier is part of a Woodland, the Natural Barrier shall be considered the first thirty (30') feet of the Woodland.
- i. **Preservation Area** A delineated area which designates trees and vegetation which will be preserved during the construction and land alteration process.
- j. **Performance Bond** A bond with good and sufficient sureties, approved by the City Council, which is conditioned upon satisfactory implementation of an approved plan and which names the City as obligee.
- k. **Critical Root Zone** An area under a tree equal to one and one-half (1'6") feet of radius for every one (1") inch of tree diameter (e.g A 20" tree has a critical root zone of 30' radius or 60' diameter).

Shore Land That area adjacent to White Bear Lake or any other recognized wetland and extending horizontally seventy-five (75') feet back from the mean high water line.

- l. **Significant Tree** A healthy deciduous tree measuring eight (8") inches or greater in diameter, at a point four and one half feet above grade, or a healthy coniferous tree measuring ten (10') feet in height or greater.
- m. **Steep Slopes.** A slope with greater than a thirty-three (33%) percent change in elevation or a 3:1 grade (3 parts horizontal to 1 part vertical).
- n. **Woodland.** An area of ~~at least one-half (1/2) acre in size~~ of land, utility easements, or rights-of-way, with at least twenty (20) significant trees on the parcel or with tree cover over at least thirty-five (35%) percent of the total land area.

406.70 - Protection Standards

- 1. No land alteration shall occur until the City finds that the planned land alteration complies with the following:
 - a. **Maximum Possible Preservation.** All land alteration shall be conducted so that the maximum amount of woodland and natural screening and barriers are preserved by the clustering of structures wherever possible, or by the use of other appropriate methods. Measures shall be taken to protect and preserve all trees and shrubs in the preservation area as described.
 - b. **Protection Of Root Zones.** Grading, contouring, paving and any excavation or trenching shall not detrimentally affect the aeration or permeability of the root zone in the preservation area.

c. Data Submission.

- A. The applicant shall submit data to the City, at the time of a preliminary plat submission or whenever land alteration (as described in this Ordinance) is planned, that outlines the conformance to this Ordinance. This submission shall include:
1. The name and address of the person preparing the plan and applying for a permit to do this alteration, and
 2. The name and address of the person who owns the land that is to be altered, and
 3. The estimated period of time within which this land alteration will be conducted, and
 4. A topographical map of the land on which the proposed land alteration is to occur having a scale of one inch equals 100 feet and showing the ground elevation contours at two foot intervals. The map shall also show:
 - a. The land as it exists prior to the proposed land alteration including, a minimum one-hundred (100') feet of the abutting properties; and
 - b. The proposed ground elevation contours at 2 foot intervals on the land when the proposed land alteration is complete, and
 - c.. A re-grading, drainage and planting plan, if appropriate.
- B. A statement relating to the proposed use of the land including the type of building or structure situated thereon or to be constructed, and
- C. A tree inventory, certified by a registered land surveyor, landscape architect or forester depicting the size, species, condition and location of each significant tree by species, diameter and condition, and
- D. Identification of significant trees that will be lost due to the proposed land alteration and those which will be preserved, and
- E. Identification of all significant trees within 30 feet of the grading limit, and
- F.. Identification of all natural barriers of trees or shrubs.

406.80 - Removal Thresholds

1. Although the applicant must retain the maximum amount of woodland possible, the City recognizes that a certain amount of significant trees and tree cover removal is an inevitable consequence of the urban development process.

2. Therefore, a maximum percentage up to 25% of the woodland may be removed without any obligation for reforestation. If the land alteration results in woodland removal that exceeds 25%, then the applicant shall be responsible to replace the trees in accordance with Section 9 of this Ordinance.
3. Natural borders may not be removed or altered without the written permission of the City.
4. Intensive vegetation clearance within the shore land area or on steep slopes is prohibited.

5. **TABLE OF ZONING DISTRICT AND TREE REMOVAL THRESHOLD**

Tree removal in excess of the thresholds shown requires Planning Commission and City Council approval and reforestation.	
COLUMN I ZONING AREA OR DISTRICT	COLUMN II REMOVAL THRESHOLD
RESIDENTIAL	25%
SHORE LAND – All Districts	10%
NATURAL BARRIER – All Districts	0%

406.90 – Reforestation

1. Tree Removal Beyond The Removal Threshold.

If the land alteration results in tree removal beyond the tree removal threshold in 406.080 of this Ordinance, or as defined in Section 406.060 of this Ordinance, or a natural barrier is to be altered or removed, the applicant shall be required to submit a reforestation plan. The reforestation plan must be submitted and approved by the City Designee prior to final plat approval, if a subdivision is being done, or before the work of land alteration is begun. The reforestation plan shall include:

- a. Location of proposed reforestation, and
- b. Species and size of proposed plantings, and
- c. Quantity of proposed plantings.

2. Reforestation Plan

The reforestation plan shall comply with the following criteria:

- a. Tree replacement will be predicated on the total number of diameter inches of significant trees removed beyond the threshold limits.
- b. Actual replacement quantities shall be adjusted based on the type of trees removed in accordance with the following guidelines:
 - i. Class A ~~Conifers or Softwood~~ ~~predominantly Poplar, Box Elder, Cottonwood, Aspen and Conifers:~~ 75 %
 - ii. Class B Mixed Hardwoods - predominantly species other than Oak including, but not limited to, Cherry, Birch, Walnut, Elm, Ironwood, Maple, Basswood, Ash: 100 %
 - iii. Class C Hardwood - Predominantly mature Oaks : 125%

3. Where trees are to be located.

Trees to be provided as part of a reforestation plan shall be located adjacent to the development or proposed structures in areas such as yard setbacks, on outlots or common areas, at the project entrance area, in buffer zones between different land uses or roads, or at other locations as directed by the City. Reforestation shall occur in such a way as to replace trees removed with desirable trees of the same or similar species and/or densities. These trees must be planted based on the frequency and density as determined by the City Designee.

a. Sizes and type of replacement trees.

Replacement trees must be no less than the following sizes:

- A. Deciduous trees
 1. No less than two and one-half (2½") inches in diameter on steep slopes, or
 2. No less than three (3") inches on all other grades.
- B. Coniferous trees
 1. No less than six (6') feet high on steep slopes, or
 2. No less than seven (7') feet high on all other grades.

406.100 - Construction Damage To Significant Trees In Or Near The Preservation Area.

1...Significant trees which are within thirty (30) feet of the proposed grading limit shall be surveyed by the applicant. Any significant tree that the applicant commits to preserve that is subsequently damaged, during or as the result of construction, shall be replaced by the applicant on a one for one diameter inch basis.

406.110 - Agreement To Replace Trees

- 1 The developer or applicant, prior to the approval of, or issuance of a permit for any land alteration in connection with which trees are required to be replaced by the provisions in this Ordinance, shall
 - a.. enter into such written agreements or arrangements with the City of Birchwood Village in such form and substance as shall be approved by the City, whereby the applicant shall undertake to comply with the provisions and conditions imposed by this Ordinance and in connection with any such approval or issuance of a permit and shall further provide that the applicant shall indemnify the City against any loss, cost or expense, including an amount as and for reasonable attorneys' fees incurred in enforcing the terms of such agreement or agreements; and
 - b. provide security for the performance of its obligations pursuant to such agreement or agreements. The security may consist of a bond, letter of credit, cash, or escrow deposit, all in such form and substance as shall be approved by the City.
 - i. The amount of this security shall be \$ 1,000 or 150% of the estimated cost to furnish and plant the replacement trees (estimated cost) which ever is greater. The estimated cost shall be at least as much as the reasonable amount charged by nurseries for furnishing and planting of replacement trees. The estimated cost shall be subject to approval by the City, and in the event the estimated cost is not approved, the City shall have the right, in its sole discretion, to determine the escrow amount.

406.120- Collector And Arterial Roads And Trunk And Lateral Utility Construction

1...When This Section Applies.

~~This section shall only apply to collector and arterial road and trunk and lateral utility construction projects. All interior roads and utility services will be required to adhere to applicable zoning district thresholds.~~

2...Road And Utility Construction.

Significant trees shall not be destroyed or removed within the right-of-way unless such destruction or removal is absolutely necessary because of engineering, safety, sight distances, or maintenance requirements and acceptable alternate means of construction or alternate routes are not possible. Such reasons must be submitted for review by the City.

3...Reforestation.

If the road or utility construction destroys or removes fifty (50%) percent or less of the significant trees or tree cover in the right-of-way, then the person or entity conducting the construction shall not be responsible for reforestation. If, however, more than fifty (50%) percent of the significant trees or tree cover within the easement or right-of-way are destroyed or removed, the person conducting the construction shall be responsible for the following:

- A. Filing a landscape bond pursuant to 406.110; and
- B. Replacement of trees that exceed the fifty (50%) percent threshold shall be in accordance with 406.090 of this Ordinance. The replacement trees shall be planted on the adjoining setback areas, assuming the adjoining landowners consent. Otherwise, the replacement trees shall be planted at locations as determined by the City.

406.130 - Exceptions To This Ordinance

13.1 The requirements of this Ordinance shall not apply to the removal of trees which are dead, diseased, seriously damaged by storm, or other acts of nature.

406.140- Tree Replacement

1...Replacement trees shall be planted not later than 12 months after the date the land alteration has commenced. If the applicant is prevented from performing within this time limit, because of unforeseen circumstances beyond the applicant's control, the City Designee may extend the time for performance. The applicant shall inform the City Designee when all replacement trees have been planted, at which time the City Designee shall inspect the site.

2...Replacement trees shall consist of "certified nursery stock" as defined by Minnesota Statutes Section 18.46 ~~or other trees ("wilding trees") so long as the wilding trees comply with the following standards. A wilding tree measured in diameter inches shall not exceed the maximum height as shown below:~~

TABLE 406.140.3

DIAMETER OF TREE IN INCHES	MAXIMUM HEIGHT OF TREES IN FEET
Two (2.0") Inches	Eighteen (18') Feet
Two and One Half (2.5") Inches	Eighteen (18') Feet
Three (3") Inches	Twenty (20') Feet
Three and One Half (3.5") Inches	Twenty (20') Feet
Four (4") Inches	Twenty Four (24') Feet
Five (5") Inches	Twenty Eight (28') Feet

4...~~The lowest branch of a wilding tree shall be at a height above the surface of the ground not more than one-half of the total height of the tree. (Example, a 16 foot tree must have a branch within 8 feet of the surface of the surrounding ground.)~~

5...~~Trees planted in place of missing, dead or un healthy replacement trees shall consist of only "certified nursery stock" as defined by Minnesota Statutes, Section 18.46.~~

406.150- Release And Retention Of Performance Security

1...Release Of Performance Security

a...The performance security shall remain in effect for not less than one (1) year after the date that the last replacement tree has been planted. The City may release the performance security at that time unless the City Designee, upon inspection, finds that any of the replacement trees have died or are unhealthy, or if there was any encroachment upon the protective fencing surrounding any tree to be saved.

b...If the applicant supplies proof of a nursery guarantee which is approved by the City Designee, then the performance security posted by the applicant shall be released upon planting of the last guaranteed tree. The nursery guarantee shall remove liability from the applicant and responsibility will be placed upon the nursery or current land owner.

2.....Retention Of All Or Portion Of Performance Security.

The City may retain the portion of the performance security equal to the cost of removing dead or unhealthy trees and replanting replacement trees.

406.160 - Penalty

Any person violating or refusing to comply with the provisions of this Ordinance shall be guilty of a misdemeanor, and prosecuted and upon conviction thereof, shall be punished by a fine of not more than Seven Hundred and no/100 (\$700.00) dollars or by imprisonment not to exceed ninety (90) days, or both. The costs of prosecution may also be added.

Eden Prairie Ordinance - Part of Land Use Ordinance

- D. **Other Requirements.** Neither this Section nor any administrative decision made under it exempts a person from other requirements of this Code, from procuring permits required by other agencies (including but not limited to the Watershed District, Hennepin County, Minnesota Pollution Control Agency (MPCA), the Minnesota Department of Natural Resources (DNR) or the U.S. Army Corps of Engineers (USACE) or from complying with the requirements and conditions of such permits. A copy of any permits related to Wetlands, Land Alteration or Stormwater received from another federal, state or local authority must be provided to the City Engineer prior to issuance of a Permit from the City.

Subd. 4. Tree Replacement Plan Requirements.

The issuance of a Land Alteration Permit or Building Permit shall be further subject to and conditioned upon compliance by the Permittee with the following:

- A. **Tree Inventory.** A Tree Inventory certified by a registered land surveyor, landscape architect or forester must be provided to the City Forester. The Tree Inventory must depict the following:

1. The size, species, condition and location on the Site of all Significant Trees. On large wooded areas, forest mensuration methods may be used to determine the total Diameter inches of trees outside the area of the proposed Land Alteration.
2. A list of Significant Trees which will be lost due to the proposed Land Alteration. Significant Trees shall be considered lost as a result of:
 - a. grade change or Land Alteration, whether temporary or permanent, of greater than one (1) foot measured vertically, affecting 60% (as measured on a horizontal plane) or more of the tree's Root Zone;
 - b. utility construction (i.e., sewer, water, storm sewer, gas, electric, telephone and cable TV) resulting in the cutting of 60% or more of the tree's roots within the Root Zone;
 - c. mechanical injury to the Tree Trunk of a Significant Tree causing loss of more than 40% of the bark at any given Diameter location along the trunk; or,
 - d. compaction to a depth of 6 inches or more of 60% or more of the surface of the soil within a Significant Tree's Root Zone.
3. The number, type and size of trees required to be replaced pursuant to this Section.
4. The location of the replacement trees.

- B. **Tree Replacement Requirements.** The Permittee shall replace Significant Trees lost or reasonably anticipated to be lost as a result of Construction Activity or Land Alteration immediately upon the occurrence of a loss, whether the loss occurs during Construction Activity, Land Alteration or thereafter, by the Permittee, his agent, or successor in interest by planting that number of trees (Replacement Trees) determined in accordance with the following formula:

- A = Total Diameter Inches of Significant Trees Lost as a Result of the Land Alteration
B = Total Diameter Inches of Significant Trees Situated on the Land
C = Tree Replacement Constant (1.33)
D = Replacement Trees (Number of Caliper Inches)

$$[(A/B) \times C] \times A = D$$

EXAMPLE

A = 337

B = 943

C = 1.33

D = 160

$$[(337/943) \times 1.33] \times 337 = 160$$

The trees required to be replaced pursuant to this Section shall be in addition to any other trees required to be planted pursuant to any other provision of the Code. A Financial Security is required as described in Subdivision 12 of this Section.

C. **Location of Replacement Trees.** Replacement Trees shall be planted in one or more of the following areas on the Land:

1. Restoration areas including steep slopes.
2. Outlots or common areas.
3. Buffer zones between different land uses and/or activities.
4. Project entrance areas.
5. Wetland Buffer Areas
6. Stormwater BMPs designed according to Subd. 6.
7. Any other part of the Land except areas dedicated or conveyed to the City, unless the City consents in writing.

D. **Sizes and Types of Replacement Trees.** Replacement Trees must be no less than the following sizes:

1. Deciduous trees - no less than three (3) Caliper Inches.
2. Coniferous trees - no less than seven (7) feet high.

On steep slopes (i.e., greater than 3:1) deciduous trees may be two (2) Caliper Inches and coniferous trees may be six (6) feet in height.

Replacement Trees shall be of a species similar to the trees which are lost and shall be pre-approved in writing by the City.

E. **Time to Perform.** Replacement trees shall be planted not less than 18 months after the date of issuance of the Permit.

F. **Missing, Dead or Unhealthy Trees.** Any Replacement Tree which is not alive or healthy one (1) year after the date that the last Replacement Tree has been planted shall be removed and a new healthy tree of the same size and species shall be planted in place of the removed tree. All such plantings shall occur within one year of the date the tree qualifies as dead, unhealthy or missing.

G. **Sources of Trees.** Replacement trees shall consist of "certified nursery stock" as defined by Minnesota Statutes Section 18.46.

Trees planted in place of missing, dead, or unhealthy Replacement Trees shall consist only of "certified nursery stock" as defined by Minnesota Statutes, Section 18.46.

H. **Exceptions.** The provisions of Subd. 4 shall not apply to the cutting of trees planted and grown by the owner or owner's predecessor on real estate which on April 17, 1990 was classified as Class 2b property according to Minnesota Statutes 1989 Supplement, Section 273.13, Subd. 23(b) because it was as of such date real estate, rural in character, and used exclusively for growing trees for timber, lumber, wood and wood products as described in clause (1) of said Subd. 23(b).

City of Maplewood Ordinance
ENVIRONMENTAL PRESERVATION AND PROTECTION
OF TREES AND WOODLANDS
9-11-06

Purpose. The city desires to protect the trees and woodlands in the City of Maplewood. Trees and woodlands provide better air quality, scenic beauty, protection against wind and water erosion, natural insulation for energy conservation, and are beneficial in watershed management. Trees and woodlands also provide wildlife habitat, privacy as screening, act as natural sound and visual buffers, and increase property values. It is therefore the city's intent to protect, preserve, and enhance the natural environment of Maplewood and to encourage a resourceful and prudent approach to development in the city; thereby, promoting and protecting public health, safety, and welfare of the citizens of Maplewood. The purpose of this article is to establish a tree preservation and protection ordinance to assure the continuance of significant natural features for present and future generations which:

1. Preserve the natural character of neighborhoods (in developed and undeveloped areas).
2. Protect the health and safety of residents.
3. Protect water quality and minimize storm water runoff.
4. Prevent erosion or flooding.
5. Assure orderly development within wooded areas to minimize tree loss and environmental degradation.
6. Establish a minimum standard for tree preservation and mitigation of environmental impacts resulting from tree removal.
7. Establish and promote an on-going tree planting and maintenance program within the city to assure trees and woodlands for future generations.

Applicability.

1. This article shall apply to any individual, business, or entity that engage in a building or development project which requires issuance of a grading permit or new building permit. This includes all sites of new development that contain significant trees or woodlots. Platting and adding new roadway and right of way are subject to this ordinance.
2. The following are exceptions and are exempt from the requirements of this ordinance:
 - a. Minor home additions, general home improvements, and construction of accessory buildings (i.e. garage, shed).

- b. Tree removal related to city public improvement projects to existing roadways, sewers and other infrastructure, utility/infrastructure work or repair.
- c. Emergency removal of a tree(s) to protect public health.
- d. Restoration of land to native prairie. Prairie restoration must be approved by the environmental manager or city forester.
- e. Commercial tree nursery and landscape operations.
- f. Removal of dead or dying trees.

Definitions. The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Applicant means developer, builder, contractor or homeowner who applies for a building or grading permit.

Caliper means a tree trunk measurement of nursery stock measured six (6) inches above ground for tree trunks up to four (4) caliper inches. Tree trunks over four (4) caliper inches measured at six (6) inches in height, move measurement point to twelve (12) inches above ground to measure trunk caliper. Trees greater than four (4) caliper inches may have diameter measurements.

City Forester means a tree inspector/forester certified by the State of Minnesota who is employed by the city, or appropriate agent or independent contractor designated by the city. Must meet the definition of a *Maplewood Registered Forester*.

Coniferous/Evergreen Tree means a woody plant having foliage on the outermost portions of the branches year-round which at maturity is at least twelve (12) feet or more in height. Tamaracks and Larch are included as coniferous tree species.

Critical Root Zone (CRZ) means an imaginary linear circle surrounding the tree trunk with a radius distance of one (1) foot per one (1) inch of tree diameter (e.g., a sixteen (16) inch diameter tree has a CRZ with a radius of sixteen (16) feet.

Deciduous Tree means a woody plant, which sheds leaves annually, having a defined crown and at maturity is at least fifteen (15) feet or more in height.

Diameter means a standard point of measurement of tree size, measurement of tree trunk in inches at a height of four and one half (4.5) feet above ground. Measure the circumference of a tree trunk in inches at four and one half (4.5) feet above ground and divide by (3.14) to determine diameter.

Drip Line means the farthest distance around and away from the trunk of a tree that rain or dew will fall directly to the ground from the leaves or branches of that tree.

Environmental Manager means an employee of the city who manages city-wide environmental programs, or appropriate agent designated by the city.

Hardwood Deciduous Tree means the following tree species: ash, basswood, birch, black cherry, catalpa, hackberry, hickory, ironwood, hard maples (sugar maple or red maple), locust, oak, and walnut.

Major Home Addition means an addition on a single or double dwelling lot of which the addition or accessory building is more than a sixty (60) percent increase in the footprint of the single or double dwelling structure on said lot.

Maplewood Registered Forester means a person who is registered with the city as a consulting forester and holds a minimum of a Bachelor of Science degree in arboriculture, urban forestry or similar field from an accredited academic institution or is registered with the International Society of Arboriculture as a certified arborist/forester.

Minor Home Addition means an addition on a single or double dwelling lot of which the addition or accessory building is less than a sixty (60) percent increase in the footprint of the single or double dwelling structure on said lot.

Ornamental Tree means a woody plant, which is grown for its beauty of its foliage and flowers.

Retaining Wall means a structure utilized to hold a slope in a position in which it would not naturally remain.

Specimen Tree is a healthy tree of any species twenty-eight (28) inches in diameter or greater. These trees are considered Significant Trees.

Significant Natural Feature means a significant water body, woodlot, significant slope, or a site of historical or archeological significance that has been recorded with the state.

Significant Tree means a healthy tree measuring a minimum of six (6) inches in diameter for hardwood deciduous trees, eight (8) inches in diameter for coniferous/evergreen trees, twelve (12) inches diameter for softwood deciduous tree, and specimen tree of any species twenty-eight (28) inches in diameter or greater as defined herein. Buckthorn or others noxious woody plants as determined by the environmental manager are not considered a significant tree species at any diameter.

Slope means the inclination of the natural surface of the land from the horizontal; commonly described as a ratio of the length to the height.

Structure means anything manufactured, constructed, or erected which is normally attached to or positioned on land, including portable structures.

Softwood Deciduous Tree means the following tree species: box elder, cottonwood, elm, poplar/aspen, silver maple, and willow.

Tree Preservation Plan means a plan prepared with the assistance of a certified forester, which clearly shows all trees in the area to be developed or within the parcel of record. The plan should

include all significant trees to be preserved and measures taken to preserve them. The plan will also include calculations to determine the number of replacement trees as required by the tree mitigation schedule and a proposed re-forestation landscape plan.

Utility means electric, telephone, telegraph, cable television, water, sanitary or storm sewer, solid waste, gas or similar service operations.

Vegetation means all plant growth, especially trees, shrubs, native wildflowers, mosses or grasses.

Wetland as defined in the city's wetland ordinance.

Wilding Tree means a tree that was not grown or maintained by a nursery.

Woodlot means a treed area of at least one-quarter (1/4) acre on a vacant lot, which includes significant tree(s).

Woodlot alteration permit. A woodlot alteration application shall be submitted to the environmental manager for review prior to removal of any living trees on a woodlot that is not reviewed by another application. The applicant shall submit a tree plan and any other information needed to determine compliance with this ordinance. Specific requirements shall be stated on an application form in the office of the environmental manager. An application fee shall be established yearly by the city council by resolution. Failure to submit an approved woodlot alteration application before removal of any trees will result in a two-year moratorium for issuance of a city grading or building permit. In addition, a total tree replacement for the parcel as outlined in the tree mitigation/replacement schedule with the assumption that all trees that were removed are significant trees.

The environmental manager may approve a woodlot alteration permit that complies with this ordinance and receive recommendations from the city forester concerning the proposed woodlot alteration. The applicant may appeal environmental manager's decision to the environmental committee in writing within fifteen (15) days of the environmental manager's written decision. The applicant may appeal the environmental committee decision in writing within (15) days of the environmental committee written decision to city council for final decision. Applicant must first approach environmental manager then environmental committee before city council will review.

Tree preservation plan. A tree preservation plan is required for any project which requires any land use permit, grading permit, or building permit; excluding minor home additions and the removal of dead, diseased, dying or hazardous trees of any size. A tree preservation plan shall reflect the applicant's best effort to determine the most feasible and practical layout of buildings, parking lots, driveways, streets, storage and other physical features, so that the fewest significant trees are destroyed or damaged and to minimize the negative environmental impact to the site. All tree replacements will be in addition to landscape tree planting standards. An applicant may request a waiver from the environmental manager from preparation of a tree preservation plan.

Tree preservation plans shall include the following:

1. A tree inventory overlay on the site plan that shows size, species, general health, and location of all significant trees located within the area to be developed or within the parcel of record. Location of groups of standing dead or diseased significant trees shall be noted on inventory overlay.

All tree inventories shall be performed by a certified forester and shall be consistent with the engineer's grading plan contours.

All significant trees included in the tree inventory must be tagged in the field for reference on the tree preservation plan. These significant trees should be identified on the plan sheet(s) in both graphic and tabular form. Trees growing in clump form are considered individual trees and each stem/trunk is measured as individual trees.

2. A certified forester must approve the tree preservation plan.
3. The tree preservation plan must be drawn at the same scale as the other site plan submittals.
4. A tree preservation plan that coincides with necessary engineering documents such as topography, wetland information, grading plans, road, and building locations must include:
 - a. A list of total diameter inches of all healthy significant trees inventoried.
 - b. Listing of the total diameter inches of healthy significant trees removed.

The name(s), telephone number(s), and address(s) of the person(s) responsible for tree preservation during the course of the development project.

5. Outer boundaries of all contiguous wooded areas, with a general description of trees not meeting the significant tree size threshold and any indication of the presence of epidemic tree diseases.
6. Delineation of all limits of land disturbance, clearing, grading and trenching.
7. Locations of the proposed buildings, structures, or impervious surfaces.
8. Location of trees protected and the proposed measures for protection including delineation of tree protection fencing, tree protection signs, location for material storage, parking, debris storage, and wash out area for redi-mix trucks.
9. Written description of tree preservation and safeguarding measures planned for the site.

10. Size, species, number, and location of all replacement trees proposed to be planted on the property in accordance with the tree mitigation/replacement schedule.
11. Signature of the person(s) preparing the plan.

The tree preservation plan shall be reviewed by the environmental manager, with advisement from the city forester, for compliance with this ordinance. Reasons for denial shall be noted on the tree preservation plan, or otherwise stated in writing.

Tree Preservation and Safeguarding Tree Measures.

1. All developments within the city shall be designed to preserve significant trees and woodlots, where such preservation would not affect the public health, safety or welfare of Maplewood citizens. The city may prohibit removal of all or a part of a woodlot or significant tree subject to the limitations as defined in this chapter. This decision shall be based on but not limited to the following criteria:
 - a. Size.
 - b. Species, health, and attractiveness of the trees, including:
 - 1) Sensitivity to disease.
 - 2) Life span.
 - 3) Nuisance characteristics.
 - 4) Sensitivity to site grading.
 - 5) Potential for transplanting.
 - 6) Need for thinning a woodlot.
 - 7) Effects on the functioning of a development.
 - 8) Fragmentation of wooded area and effects on wildlife corridors.
 - 9) The public health, safety and welfare.
 - 10) Effect on wetlands and/or watershed.
 - 11) Native Prairie Restoration
2. Safeguarding preserved trees: the tree preservation plan shall delineate the location of (existing) significant trees that are to be preserved with location and type of protective fencing.
 - a. Tree protective areas shall be located at a minimum of the CRZ of trees or drip line whenever possible. Use of tree-save islands and stands are encouraged rather than the protection of individual trees scattered throughout a site.
 - b. Suitable tree protection fencing in active areas includes use of orange polyethylene laminar safety fencing or woven polyethylene fabric (silt fencing). Fencing must be self-supportive. All active tree protection areas shall be

designated as such with "Tree Save Area" signs posted in addition to the required fencing.

- c. Use of passive forms of tree protection requires approval from environmental manager in writing. Passive forms of tree protection fencing include use of continuous rope or flagging (heavy mil plastic four (4) inches or wider) with visible signage stating "Keep Out" or "Tree Save Area".
- d. Signs requesting subcontractor cooperation and compliance with tree protection standards are required at site entrances.
- e. No construction work shall begin until tree protection fencing has been installed, inspected, and approved by the city forester. At least three (3) working days prior to construction or grading, applicant shall be required to request inspection of on-site protective measures by city forester. Once city forester approves tree protection fencing or devices it must not be altered or removed without prior written approval.
- f. Tree protection fencing shall be maintained and repaired by the applicant for the duration of construction. No grade change, construction activity, storage or staging of materials shall occur within this fenced area.
- g. Use of custom grading, retaining walls or tree wells to maintain existing grade for preserved trees.
- h. Layout of the project site utility and grading plans should accommodate the tree preservation areas. Utilities recommended along corridors between tree preservation areas and use of common trenches or tunnel installation if possible.
- i. Minimize tree wounding by felling or removing trees away from trees remaining on site.
- j. Construction site activities such as parking, material storage, concrete washout, placement of holes, etc., shall be arranged so as not to encroach on tree protection areas.
- k. Identify and prevent oak wilt infection. Treat all known oak wilt infected areas with current accepted guidelines including root cutting and tree removal. If pruning oaks is required between April 1 and July 1 cover fresh wounds with nontoxic tree wound sealant or latex paint.
- l. Use of wood chip mulch to a depth of six (6) to eight (8) inches adjacent to tree protection areas to minimize soil compaction and desiccation.

- m. Concrete washout, leakage or spillage of fuels or paints, or other materials that would result in detrimental change in soil chemistry is prohibited in tree preservation areas.
 - n. Post construction tree care to mitigate construction damage:
 - 1) Tree root aeration, fertilization, and/or irrigation systems.
 - 2) Therapeutic pruning.
 - o. Soil compaction mitigation by:
 - 1) Mulch drive lanes with eight (8) to ten (10) inches of woodchips.
 - 2) Soil fracturing with deep tillage or other similar methods.
 - 3) Inclusion of organic matter to existing soil.
 - 3) Core aeration.
 - p. Transplant existing trees to a protected area for future transplanting onto permanent sites within the construction area.
3. If any significant tree stated as preserved (protected) in the approved tree preservation plan is cut, damaged, or encroached upon by grading equipment or during the construction process without city authorization and is determined by the environmental manager that the damaged tree(s) will probably not survive, the said damaged tree(s) shall be removed by the applicant at their expense and replacement tree(s) required at a rate of two (2) times the tree mitigation/replacement formula.

Tree Mitigation/Replacement Schedule.

If less than twenty percent (20%) of significant tree diameter inches is removed, the applicant shall replace one (1) tree per significant tree removed. Tree replacement shall be a minimum of two (2.0) caliper inches in size.

If twenty percent (20%) or more total diameter inches is removed, applicant shall mitigate all significant diameter inches using the tree mitigation/replacement schedule in accordance with the following formula:

A = Total Diameter Inches of Significant Trees lost as a result of the Land Alteration

B = Total Diameter Inches of Significant Trees situated on the property.

C = Tree Replacement Constant (1.5)

D = Replacement Trees (Number of Caliper Inches)

$$((A/B - .20) \times C) \times A = D$$

Example

A = 379

B = 943

C = 1.33

D = 160

$$((379 / 943 - 0.20) \times 1.5) \times 379 = 114.7 \text{ caliper inches}$$

The trees required to be replaced pursuant to this chapter shall be in addition to any other trees required to be planted pursuant to any other provision of city code.

Once the total caliper inches for replacement trees are determined, the developer/applicant shall mitigate tree loss by either:

1. Plant replacement trees in appropriate areas within the development in accordance with the tree replacement schedule.
2. Plant replacement trees on city property under the direction of environmental manager or city forester. Must be approved during the review process prior to issuance of permit(s).
3. Pay the city a sum per diameter inch in accordance with the tree replacement schedule with written approval from city staff. The fee per diameter inch shall be set forth in the city fee schedule set annually by city council resolution. Payment shall be deposited into an account designated specifically for tree planting on public property within the city. The form of mitigation to be provided by the applicant shall be determined by city staff. This provision may only apply if all other measures in this ordinance have been exhausted.
4. The developer shall be required to maintain trees for two (2) year after planting. Should any tree require replacement during this two (2) year period, the replacement period shall start at the date of replacement. Trees required to be planted pursuant to any other provision of city code are not included in this and must be replaced according to such code.

5. Species requirements: Where ten (10) or more replacement trees are required, not more than thirty (30) percent shall be of the same type of tree without the written approval of the environmental manager. Native tree species to the Maplewood area are preferred.
6. Sources of trees: Replacement trees shall consist of certified nursery stock as defined by Minnesota Statutes, Section 18.46 hardy for this USDA plant hardiness zone (Zone 2, 3 or 4 hardiness rated trees) or other trees including wilding trees, so long as such wilding trees comply with the following standards and are approved by the environmental manager or city forester. All replacement trees shall be healthy and free from insect or disease infestation. A wilding tree measured in caliper inches shall not exceed the maximum height as shown on the table below:

CALIPER INCHES	MAXIMUM HEIGHT (FEET)
2-3	18
3-4	20
4-5	24

The lowest branch of a wilding tree shall not be at a height above the surface of the ground more than one-half (1/2) the total height of the tree (e.g., a fourteen (14) foot tree must have a branch within seven (7) feet of the surface of the surrounding ground).

7. Tree replacement size must be no less than two (2) caliper inches deciduous or six (6) foot evergreen tree unless pre-approved by the environmental manager. Evergreen or coniferous tree height convert to caliper measurement as follows: the first six (6) feet of growth equals two and one-half (2.5) caliper inches for each additional two (2) feet in height equals one (1) additional caliper inch. Trees required to be planted pursuant to any other provision of city code must comply with tree size specification of such code.
8. Tree replacement surety required. The applicant shall post tree replacement surety with the city, such as a tree replacement cash deposit or letter of credit, of one hundred and fifty (150) percent of estimated cost for tree replacement for proposed planting. Funds will be held by the city until successful completion of final planting inspection. It shall be the applicant's responsibility to call for such inspection. Tree replacement surety does not include other sureties required pursuant to any other provision of city code or city directive.

Enforcement. The city reserves the right to inspect the construction site at any time for compliance with this ordinance. Should the city find the site in violation of the approved tree preservation plan, they may issue a stop work order until conditions are corrected. Stop work order, will be lifted after approved by environmental manager or city forester in writing.

The city shall be responsible for the enforcement of this ordinance. Any person who fails to comply with or violates any section of this ordinance shall be deemed guilty of a misdemeanor and, upon conviction, shall be subject to punishment in accordance with section 1-15. All land use building, and grading permits shall be suspended until the developer has corrected the violation. Each day that a separate violation exists shall constitute a separate offense.

Effect on density. The city may reduce the maximum allowed density on that part of a development that has a significant natural feature, where such reduction would save all or part of a significant natural feature. However, regardless of the requirements in this article, the maximum allowed density shall not be reduced below 67 percent of the allowed density in the city's land use plan for multiple dwellings. The minimum lot size shall not be increased above 15,000 square feet for single dwellings. Any required density reduction or increase in lot size must save a significant natural feature. The city council may require the clustering of dwellings in the form of townhouses, quads, apartments, or similar uses where it is necessary to preserve significant natural features.

TREE PRESERVATION PLAN

Site Plan Review

City of Saint Paul

WHAT IS A TREE PRESERVATION PLAN?

A Tree Preservation Plan is a site plan that shows:

- The existing trees on the site
- Existing and proposed grading
- New development on the site (such as buildings, paving, changes to existing grades)
- Measures that will be taken to protect the existing trees
- Any new trees that will be planted on the site

WHEN IS A TREE PRESERVATION PLAN REQUIRED?

A Tree Preservation Plan is required for any development:

- Anywhere in the City if it affects slopes steeper than 12%
- In the City's Tree Preservation District (located south of Lower Afton Road in Highwood)

For these developments, a Tree Preservation Plan must be submitted before the City will approve any application for:

- Site plan review, grading permit, lot split or plat (This requirement is waived if the applicant can demonstrate that there are no existing trees within the limits of the area that will be disturbed by construction)
- A building permit that requires the removal of a tree 12 inches in diameter or larger.

No grading, tree removal or other site preparation can occur until a Tree Preservation Plan has been approved.

WHAT NEEDS TO BE SHOWN ON THE TREE PRESERVATION PLAN?

The Plan must show the limits of the area that will be affected by any construction or grading. Within those limits the following information must be shown:

- Buildings The location of all proposed buildings, driveways and other paving, decks etc.
- Grading Existing and proposed grading must be indicated by 2 foot contours
- Existing trees All existing trees larger than 6 inches in diameter within the construction/grading limits of the development must be shown on the plan and identified by species. The drip line of these trees must be shown. The Plan must show which existing trees will be saved and which trees will be removed.
- Tree protection measures The Plan must show what will be done to protect existing trees during construction. One common measure is installing construction fence around the trees that will be saved. This fence should be installed at the drip line of the tree or as close to the drip line as possible. A detail of this is shown on back of this handout and should be added to the Plan.
- Replacement trees If trees are removed, the property owner may be required to plant new trees. The Plan must show the location of these trees. These trees must be identified by species and size. Minimum size is 2.5 inch diameter. Staff can advise you on the species to plant.

WHO CAN PREPARE A TREE PRESERVATION PLAN?

The Plan must be prepared by a registered landscape architect, forester or land surveyor.

SUBMITTAL REQUIREMENTS

For any project that requires a Tree Preservation Plan, the following must be submitted to the City of Saint Paul's Department of Safety and Inspections (DSI) at 8 East 4th Street #200, Saint Paul, MN 55101

- Application Form An "Application for Site Plan Review" must be filled out.
- Application Fee For projects that require Site Plan Review, the standard fee for Site Plan Review includes the cost of reviewing the Tree Preservation Plan. For all other projects, the fee for reviewing the Tree Preservation Plan is \$110. (Site Plan Review is required except for one and two family homes on relatively flat sites.) Checks should be made payable to the "City of Saint Paul".
- Tree Preservation Plan Five copies of the Tree Preservation Plan must be submitted with the application. The Plan must be drawn to scale (such as 1" = 20') and folded to 8-1/2 x 11 size.

PRESERVING EXISTING TREES

- **Site planning to avoid trees** An inventory of existing trees must be done. The house, driveway, decks, etc. should be located to avoid large trees as much as possible. Grading should minimize cut and fill over tree roots.
- **Protecting trees during construction:** Trees that will be preserved must be protected from damage during construction. The most common method is installing construction fence around the trees that will be saved. Construction fence should be installed at the drip line of the tree or as close to the drip line as possible. A detail showing how to install this fence is shown on this handout and must be added to the Plan.

PLANTING REPLACEMENT TREES

While development should save as many trees as possible, it is recognized that some trees may have to be removed. Trees removed for development or reasonably anticipated to be lost due to development must be replaced according to the following requirements:

- Individual trees of at least 12 inches in diameter but less than 18 inches in diameter must be replaced on the basis of one replacement tree for every one tree removed.
- Individual trees of at least 18 inches in diameter but less than 24 inches in diameter must be replaced on the basis of two replacement trees for every one tree removed.
- Individual trees of 24 inches in diameter or larger shall be replaced on the basis of three replacement trees for every one tree removed.

Some trees may be removed without replacement trees being planted. These are trees located in the area of the proposed building and within 15 feet of the foundation, parking areas, driveways and private streets.

Replacement trees should be of a species similar to the tree it is replacing. Deciduous trees must be at least 2.5 inches in caliper. Evergreen trees must be at least 6 feet in height.

Trees designated for removal within the limits of disturbance may be transplanted within the site and counted as replacement trees.

SECURITY AGREEMENT

The City may require a performance bond, letter of credit or cash escrow deposit equal to 125 per cent of the value of the replacement trees.

TREE PRESERVATION ORDINANCE

This handout is a summary of the regulations found in Saint Paul's Tree Preservation Ordinance. The full text of the Tree Preservation Ordinance can be found in Chapter 67.200 of Saint Paul's Legislative Code. Copies are available on-line at www.stpaul.gov/code (click on the link for chapter 67).

This information is also available on-line. Go to www.stpaul.gov/dsi and click on "Zoning."

Please call 651-266-9086 if you have any questions. H:\COMMON\ZONE\Site plan handouts\Tree pres.wpd

November 13, 2008

1Apt2 Matthews Municipal Ordinances § 34:16 (2d ed.)

Matthews Municipal Ordinances
Database updated November 2015
The Publisher's Editorial Staff
Part II. Forms
Chapter 34. Public Places and Property
I. Streets

References

§ 34:16. **Tree plan**¹

Section 1. SCOPE AND DEFINITIONS. This ordinance will apply to all **trees** in the city, including **trees** on public rights of way and **trees** on private property. This will apply to **trees** presently in existence and **trees** to be planted in the future. As used in this ordinance, the following words and phrases will have the following meanings:

City: The City of *[name of city]*.

Private land: Any land not owned by the city, including land owned by individuals and corporations as well as land owned by other public agencies.

Public land: Any land owned by the city, including street rights of way, malls, and yards around public buildings.

Tree: Any woody plant which normally grows to be 10' tall or taller, regardless of the size of the plant when it is first put in place.

Section 2. THE EXISTING TREES. It is the policy of the city to **preserve** the existing **trees** shown on the **tree** plan. Only the **trees** that are considered desirable to be **preserved** are shown on the plan. The city will, to the greatest extent possible, **preserve** the **trees** on public land shown on the **tree** plan. The city will encourage owners of **trees** on private land to **preserve** to the greatest extent possible the **trees** on private land. If any **tree** shown on the **tree** plan on public land should die, the city will replace the **tree** either with the same variety or with another variety of **tree** approved for use in the city under the **tree** plan. The replacement **tree** may be younger and smaller than the original **tree**. If any such **tree** on private land should die, the city forester will notify the owner of the land that it is the policy of the city to recommend replacement of that **tree**, and the city forester will notify the owner of the land of the types of **trees** approved for replacement under the **tree** plan.

Section 3. ADDITIONAL TREES ON PUBLIC LAND. Wherever the **tree** plan shows a proposed **tree** on public land, it is the policy of the city to plant a **tree** at that location. No **tree** will be planted at such a time and such a location that it will be destroyed in the course of anticipated future construction. **Trees** shown on a city plan as **trees** to be added to public lands will be planted from time to time as funds are available.

Section 4. NEW SUBDIVISIONS. Owners of private lands being developed as new subdivisions will provide **trees** shown on the **tree** plan in all areas to be dedicated to the city as public streets or other public lands. The subdivider will be encouraged by the city to provide the **trees** on private lands in the subdivision in accordance with the **tree** plan.

Section 5. OTHER PRIVATE LANDS. The city will encourage owners of all private lands in the city, except for lands covered by the provisions referring to new subdivisions, to plant **trees** in accordance with the city **tree** plan.

Section 6. PAMPHLET. The city forester will prepare a pamphlet for the use of the public, explaining the city **tree** plan. This pamphlet will be distributed free of charge to all persons requesting the same and this pamphlet will be delivered to each person proposing to subdivide land inside the city.

Section 7. TREE PLAN ADOPTED. The **tree** survey attached to this ordinance and marked Exhibit A is hereby made a part of this ordinance as though fully set out herein. The **tree** survey together with the rest of this ordinance shall be the official **tree** plan of the city. The **tree** survey is hereby made a part of the official plan of the city. The details on the attached survey marked Exhibit A, including but not limited to locations of existing **trees** to be **preserved**, types of **trees** approved to be planted, and locations of proposed additional **trees** are hereby approved.

Section 8. SEPARABILITY. The provisions of this ordinance are separable, and the invalidity of any part of this ordinance shall not affect the validity of the rest of the ordinance.

Section 9. PENALTY. Any person, firm or corporation violating any provision of this ordinance shall be fined not less than \$[dollar amount] nor more than \$[dollar amount] for each offense, and a separate offense shall be deemed committed on each day during or on which a violation occurs or continues.

Notes

West's Key Number Digest

West's Key Number Digest, Municipal Corporations ¶¶ 646 to 707

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Footnotes

1 See also § 37:90, **tree preservation** plan.

Green Step Cities MN - Recommended Ordinance

3.11 Woodland and Tree Preservation

(1) Purpose.

The preservation and protection of trees and woodlands can significantly add to the quality of the physical environment of the community. The City recognizes the value of trees and woodlands for improving air quality, scenic beauty, protection against wind and water erosion, shade, natural insulation for energy conservation, wildlife habitat, and protecting the integrity of the natural environment.

(2) Applicability.

(A) A Woodland Preservation Plan shall be required for:

1. Any Preliminary Plat when significant trees or significant woodlands exist in the proposed construction zone.
2. Any Minor Subdivision when significant trees or significant woodlands exist in the proposed construction zone.
3. Any Landscape Plan as required by Section 3.12 of this Chapter when significant trees or significant woodlands exist in the proposed construction zone.

(B) A Woodland Preservation Plan shall not be required for:

1. Removal of Diseased Trees. All diseased, hazardous, dead and dying trees may be removed.
2. Removal of invasive tree species. Invasive tree species are encouraged to be removed and chemically treated with appropriate herbicides and application methods to discourage re-sprouting and minimize ecological impacts.

(3) Woodland Preservation Plan Requirements.

(A) All Woodland Preservation Plans shall be certified by a forester, ecologist, landscape architect or other qualified professional retained by the applicant.

(B) The Woodland Preservation Plan shall include the following information:

1. Boundary lines of the property with accurate dimensions as established by survey.
2. Location of existing and proposed buildings, structures, parking lots, roads, impervious surfaces and other improvements.
3. Proposed grading plan with two-foot contour intervals and limits of the construction zone.
4. Location of all significant woodlands, area in square feet and acres, and description of natural community type or predominant canopy tree species, identified in both graphic and tabular form.

5. Location of all existing significant trees, size by caliper inch, scientific name, and common name for all areas of the site identified in both graphic and tabular form.
6. Location of significant trees and significant woodlands proposed to be removed within the construction zone, identified in both graphic and tabular form.
7. Measures to protect significant trees and significant woodlands, as required by Section 3.11(7).
8. Size, scientific name, common name, and location of all replacement trees proposed to be planted on the property to replace significant trees and/or significant woodlands proposed to be removed.
9. The name(s), telephone number(s), and address(es) of Applicants, property owners, developers, and/or builders.
10. Signature and qualifications of the person preparing the plan.

(4) Significant Tree Replacement

All significant trees removed shall be replaced by the applicant as determined by the tree replacement schedule. Option A, B or C, or some combination may be proposed by the applicant. The list of coniferous, primary and secondary deciduous tree species is included in Section 3.12 (4)(G).

Tree Replacement Schedule. Size of Tree Damaged or Destroyed	Number of Replacement Trees		
	A	B	C
	Deciduous trees at least 4 caliper inches; Coniferous trees at least 12 feet in height	Deciduous trees at least 2.5 caliper inches; Coniferous trees at least 6 feet in height	Deciduous trees at least 1.5 caliper inches; Coniferous trees at least 4 feet in height
Coniferous, 12 to 24 feet high	1	2	4
Coniferous, greater than 24 feet in height	2	4	8
Primary Deciduous, 6 to 20 inches diameter	1	2	4
Primary Deciduous, greater than 20 inches in diameter	2	4	8
Secondary Deciduous, 20 to 30 inches diameter	1	2	4
Secondary Deciduous, greater than 30 inches diameter	2	4	8

(5) Tree Replacement Fund. In the event that sufficient land area on the subdivision or commercial lot is not available to plant the replacement trees, as determined by the City, the Applicant shall provide to the City payment for the planting of the required trees elsewhere at a rate of \$100 per caliper inch.

(6) Significant Woodland Replacement.

All significant woodlands removed shall be replaced by the applicant. The number of replacement trees shall be determined by either of the following methods, whichever yields the greater number of replacement trees.

(A) Replacement of significant trees within the significant woodland that are damaged or destroyed, per the Tree Replacement Schedule.

(B) Replacement for every 125 square feet of significant woodland damaged or destroyed, or increment thereof, with:

1. 1 deciduous tree of at least 4 caliper inches or 1 coniferous tree at least 12 feet tall; or
2. 2 deciduous trees of at least 2.5 caliper inches or 2 coniferous trees at least 6 feet tall; or
3. 4 deciduous trees of at least 1.5 caliper inches or 4 coniferous trees at least 4 feet tall.

(C) Species Requirement.

1. The City may require that the replacement species is identical to the removed species.
2. Where 10 or more replacement trees are required, not more than 50% of the replacement trees shall be of the same species of tree without the approval of the City.
3. Trees planted to replace significant woodland shall be arranged in stands to provide a habitat similar to the damaged or destroyed habitat. An appropriate native groundcover seed mix and/or understory planting approved by the City's ecologist shall be planted along with the replacement trees.

(D) Warranty Requirement.

Any replacement tree which is not alive or healthy, as determined by the City, or which subsequently dies due to construction activity within 2 years of the tree's planting, shall be removed by the applicant and replaced with a new healthy tree meeting the same minimum size requirements within 8 months of removal.

(E) Landscaping Requirements.

The planting of trees for mitigation shall be in addition to any other landscape requirements of the City.

(F) Shoreland Overlay District.

Trees and woodlands within the Shoreland Overlay District are subject to the requirements stated in Chapter Five of this Development Code, in addition to the regulations of this Section.

(7) Required Protective Measures.

The following measures shall be utilized to protect significant trees and significant woodlands during any type of grading or construction:

- (A) Installation of snow fencing or polyethylene laminate safety netting placed at the drip line or at the perimeter of the critical root zone (CRZ), whichever is greater, of significant trees and significant woodlands to be preserved. No grade change, construction activity, or storage of materials shall occur within this fenced area.
- (B) Identification of any oak trees requiring pruning between April 15 and July 1 to avoid the spread of Oak Wilt. Any oak trees so pruned shall be required to have any cut areas sealed immediately with an appropriate non-toxic tree wound sealant. The sealant shall be kept on-site for the duration of pruning, grading, and construction activities.
- (C) Prevention of change in soil chemistry due to concrete washout and leakage or spillage of toxic materials, such as fuels or paints.

(8) Recommended Protective Measures

The following tree protection measures are suggested to protect significant trees and/or significant woodland that are intended to be preserved:

- (A) Installation of retaining walls or tree wells to preserve trees.
- (B) Placement of utilities in common trenches outside of the drip line of significant trees, or use of tunneled installation.
- (C) Use of tree root aeration, fertilization, and/or irrigation systems.

(D) Transplanting of significant trees into a protected area for later moving into permanent sites within the construction area.

(E) Therapeutic pruning.

(9) Review Process.

The Woodland Preservation Plan shall be reviewed by the City to assess the best possible layout to preserve significant trees and significant woodland, and to enhance the efforts to minimize damage to significant trees and woodland. The applicant shall meet with the Zoning Administrator prior to submission of the development application to determine the most feasible and practical placement of buildings, parking, driveways, streets, storage, and other physical features in order that the fewest significant trees and significant woodlands are destroyed or damaged.

(10) Compliance with the Plan.

(A) Implementation of the Plan.

The applicant shall implement the Woodland Preservation Plan prior to and during any construction. The tree protection measures shall remain in place until all grading and construction activity is terminated, or until a request is made to and approved by the City. No significant trees or significant woodland shall be removed until a Woodland Preservation Plan is approved.

(B) Performance Guarantee.

The applicant shall provide the required performance guarantee following preliminary approval of the Woodland Preservation Plan and prior to any construction and/or grading.

The amount of the performance guarantee to be submitted, specific to the Woodland preservation requirements, shall be calculated as follows:

1. An amount to guarantee preservation of all trees identified by the approved Woodland Preservation Plan to be preserved within the Construction Zone shall be deposited with the City.

The amount shall be calculated by multiplying the total caliper inches of significant trees to be preserved by the rate of payment of \$100.00 per caliper inch and the total square feet of significant woodland to be preserved at the rate of \$1.50 per square foot.

2. Following written request by the applicant for acceptance, the performance guarantee will be released upon verification by the City that the Woodland Preservation Plan was followed and that the tree replacement schedule was complied with where necessary; in no event shall the performance guarantee be released earlier than completion of the warranty requirements.

(C) Noncompliance. If a significant tree or significant woodland that was intended to be preserved is removed without permission of the City, or damaged so that it is in a state

of decline within 1 year from date of project closure, the cash performance guarantee, \$100.00 per caliper inch of significant tree or \$1.50 per square foot of significant woodland, shall be remitted to the City. The City shall have the right to inspect the development and building site in order to determine compliance with the approved Woodland Preservation Plan. The City shall determine whether compliance with the Woodland Preservation Plan has been met.