

TREE INSPECTIONS AND SURVEYS

Tree inspections and surveys are performed to monitor tree health and maintain quality trees on the parkways and Village properties. Inspections and surveys include checking for general tree health, storm damage, obstructions, hazardous conditions, inventory updating, infectious diseases, insect and other pests, and responding to resident inquiries.

General Tree Surveys

Several times a year, parkway trees are surveyed from behind the windshield of a vehicle (windshield survey) to assess general tree health conditions such as leaf color and quality, flower and fruit production, and tree structure and form. Any noticeable conditions or questionable features are inspected closer. Notations are recorded on forestry work order sheets (see *Forestry Division work order*) and field markings are made for plantings, maintenance needs, or removals as they are discovered.

At least one of these windshield surveys is a complete and thorough drive by of all the parkway trees along all Village streets once all trees have leafed out. The focus of this survey is to:

- identify and mark all trees that need to be removed due to decline, death or hazardous conditions
- identify and note all pruning required in the short-term for clearance including eliminating traffic control signal and sign obstructions
- identify and determine if controls are needed for any insect or disease trends

These complete windshield surveys are documented on maps as to which streets were traveled on a given day. Maps for five years are kept on file in the Forestry office.

Storm Damage Surveys

After storm events where tree damage has occurred, windshield surveys are conducted. Severity is assessed and clean-up needs determined. Notations are made for each location (see *Storm damaged branch locations* sheet). Lists are generated for Public Works crews for brush pick-up and pruning of any hanging or broken limbs within the reach and capabilities of Village equipment. Lists of large broken branches or hanging limbs which are very high in a tree as well as hazardous tree situations are sent to the contracted demand tree service (see Demand Pruning in Chapter 5). Overall tree damage is assessed per resolution 2004-59 (see Village Council policy *Tree debris cleanup in response to severe weather* policy) to see if a Village wide brush pick-up for both public and private tree debris is warranted. Table 3.1 summarizes storm experiences. Chapter 13 in this manual details more of the Urban Forestry Disaster Plan.

When brush is located on the parkway from either public trees or from private property, a brush disposal door hanger is used (see *Brush disposal door hanger*). Branches from public trees are either removed as they are found or stacked on the parkway for disposal within a few days. Branches from private trees that fall into the street are cleared from the street and stacked on either private property or the parkway. When private property branches block only the sidewalk and not the street, the area may be barricaded to alert the public and the property owner notified of the required removal. Following most storms, more than a few residents will begin stacking their private brush on the parkway at which time it becomes more efficient for staff to mail out postcards regarding brush disposal (see *Storm Brush Clean-up* postcard). Locations which have private brush on the parkway are logged for later re-inspection (7 days if practical) to ensure disposal by the property owner (see *Inspection log brush on parkways* sheet). Administrative citations may be issued if private brush is still improperly placed in the right-of-way upon re-inspection per the Village Administrative Regulation for Issuing Administrative Citations dated 9-1-19 (see Chapter 15). Such citations may be settled by paying an amount stated in Section 1-16 of the Downers Grove Municipal Code.



Village of Downers Grove

Official Village Policy Approved by Village Council

Description:	Tree Debris Clean-up in Response to Severe Weather	
Res. or Ord. #:	Res. 2004-59	Effective Date: September 21, 2004
Category:	<input type="checkbox"/> New Council Policy <input type="checkbox"/> Amends Previous Policy <input checked="" type="checkbox"/> Dated: November 17, 1997	
	Description of Previous Policy (if different from above): _____	

**A RESOLUTION AMENDING
A VILLAGE COUNCIL POLICY CONCERNING
TREE DEBRIS CLEANUP IN RESPONSE TO SEVERE WEATHER**

WHEREAS, the Council of the Village of Downers Grove has determined that it is necessary to establish certain policies concerning the value, preservation and function of the urban forest in Downers Grove; and

WHEREAS, severe weather can cause tree damage Village wide that may warrant the cleanup of private property tree debris in addition to the material from the public trees; and

WHEREAS, the Village might look to arrange and subsidize such a Village-wide cleanup effort; and

WHEREAS, the Village Council has, on November 17, 1997, previously adopted Resolution No. 97-52 entitled "A Resolution Establishing a Village Council Policy Concerning Tree Debris Cleanup in Response to Sever Weather"; and

WHEREAS, the Village Council has determined that it is necessary and desirable to amend the policy as provided herein.

NOW, THEREFORE, BE IT RESOLVED by the Village Council of Downers Grove, in

DuPage County, Illinois, as follows:

1. That the procedure set forth herein shall, in all events, be followed in determining and acting on the determination of a Village-wide clean up following a catastrophic storm event.

2. *Storm Sector Boundaries:* For purposes of this policy, storm sector boundaries are established as follows:

Sector 1: North Village limit to Ogden Ave., East Village Limit to the West Village Limit

Sector 2: Ogden Ave. to the BN Tracks, Main St. to West Village Limit

Sector 3: Ogden Ave. to the BN Tracks, East Village Limit to Main St.

Sector 4: BN Tracks to 55th St., East Village Limit to the West Village Limit

Sector 5: 55th St. to 63rd St., East Village Limit to the West Village Limit

Sector 6: 63rd St. to the south Village limit, Main St. to West Village Limit

Sector 7: 63rd St. to the south Village limit, East Village Limit to Main St.

3. *Damage Determination/Authorization to Provide Cleanup Service:* Within 48 hours of a wind, rain, or ice storm in which tree damage is experienced, the Village Manager, Director of Public Works and the Village Forester, or their designees, will assess damage using the following procedure:

a. Surveys are to be conducted of the seven storm sectors as noted on the attached and revised exhibit to determine if 15 % of the parkway trees within that section have experienced storm damage to limbs equal or greater than three (3) inches in diameter. Should it be determined that such damage has occurred in two of the seven storm sectors, the Village Manager is authorized to arrange for either contractual or Village-provided curbside cleanup of all weather-damaged tree material for the entire Village. Cleanup will begin subject to contractor availability.

b. In circumstances of threats to public safety, communications, or transportation, or in circumstances of Village-wide damage other than that indicated by the aforementioned guidelines, the Village Manager has the option to secure Village or contractual services for the removal of weather-damaged tree debris.

4. *Public Notification:* Within two days after damage determination is made and cleanup services decided upon, the Public Information Office will, at the direction of the Village Manager, coordinate information for dissemination to the public as follows:

a. Telephone Points of Contact
Village Manager's Office
Village Operations Center
Community Response Center

Public Works Department
Code Services Department

- b. Press release issued to the local papers and inclusion in the "Village Corner"
- c. DGTV Channel 6
- d. Posting at Village Hall, Library, and train stations
- e. Announcement at Village Council meeting
- f. Community Events Boards
- g. Official Website (www.downers.us)
- h. Village "E-Newsletter"

Information included on all public notification will include, at a minimum:

- a. Type of cleanup service offered (drop-off / curbside)
- b. Date offered
- c. Location offered
- d. Instructions for interim storage of material and details on citation procedures in cases of violations
- e. Preparation instructions for material cleanup
- f. Phone number to inquire about assistance offered to those physically unable to access cleanup service

In cases where it is determined that a cleanup service will not be offered, information to that effect will be made available by the Public Information Office by the sources listed above. Information on alternate disposal methods (i.e. privately arranged special pick-up, regularly scheduled refuse pick-up) will be included.

5. *Citation Procedures for Improperly Placed Material:* Village ordinance prohibits storage of material on parkways except to facilitate its removal by scavengers. The only circumstance under which residents will be allowed to leave all tree debris on the parkway (including that from private property) is that of a Village-wide curbside cleanup service (which would commence within two weeks of the storm). Under these circumstances, parkway tree material may also be left on the parkway in anticipation of collection by Village crews.

Enforcement of the ordinance prohibiting storage of material on parkways will not begin until after any storm-related cleanup service is completed (i.e. curbside pickup or drop-off chipping program). Enforcement will be executed under the provisions of the Administrative Citation Ordinance of the Village Code with the Forestry Division taking primary responsibility. The following Administrative Citation procedures will be adhered to by Forestry Division staff:

- a. Upon first observance of a violation, a door hanger instructing residents of their violation and possible remedies shall be left with notification of a second inspection date seven days later.
- b. Should the violation still exist on the date of second inspection, a second letter is to be sent.

c. Forestry staff may then exercise the option to issue either an administrative citation or a court citation for a continuing violation.

6. That all resolutions or parts of resolutions in conflict with this resolution are hereby repealed.

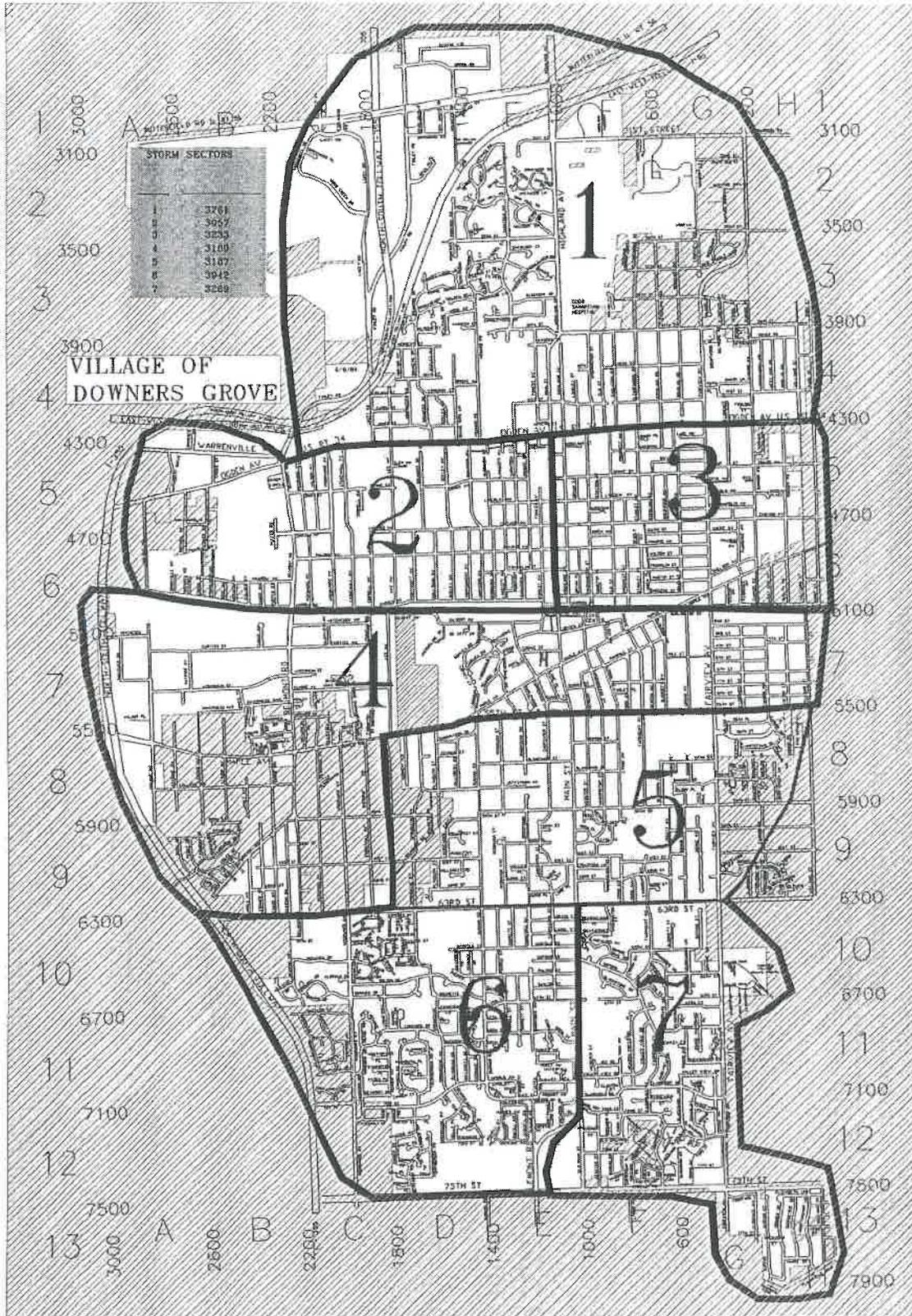
7. That this resolution shall be in full force and effect from and after its passage in the manner provided by law.

Brian J. Krajewski, Mayor

Passed: September 21, 2004

Attest: April K. Holden, Village Clerk

I:\mw\policy\Council-pol\Tree Debris-final



Storm sector map for tree debris policy Sept 2004



Table 3.1 - Downers Grove Severe Storm Occurrences

Date	July 2, 1992	July 18, 1997	June 21, 2011
Type of Storm Brush collected Village-wide? Number of Parkway Trees Lost Cubic yards brush/woodchips	Severe thunderstorm with wind Yes - both public and private 75 5580	Severe thunderstorm with wind Yes - both public and private 65 5345	Rain-wrapped EF-1 tornado Yes - both public and private 180 9200*
Costs of Storm Cleanup Personnel regular pay Overtime Supplies Rentals Contractual Tree Removals Contractual Pruning Contractual Brush Removal Contractual Other Replacement Plantings Total	not tracked \$24,752.90 \$2,352.28 \$8,747.15 \$3,300.00 \$129,541.85 \$7,750.00 \$176,444.18	not tracked \$25,930.19 \$538.84 \$2,855.11 \$14,016.90 \$6,353.75 \$104,152.57 \$11,050.00 \$164,897.36	\$131,704.56 \$55,906.32 \$8,303.54 \$16,671.49 \$53,647.50 \$27,650.00 \$151,031.24 \$2,504.00 \$37,506.00 \$484,924.65
Other Comments and Notes	Municipal crews spent 6 weeks disposing of brush, woodchips, etc.	Municipal crews spent 4 weeks disposing of brush, woodchips, etc.	Municipal crews worked 12 hr days 6 days a week for 4 weeks disposing of brush, woodchips, etc. Mutual Aid from 4 other public bodies on 5 days, 176 manhours total * Brush and woodchips stored onsite, does not count quantities directly disposed of by contractors picking up at curb

Brush Disposal Doorhanger

BRUSH DISPOSAL

Downers Grove Forestry Staff came down your street today in an ongoing effort to keep public trees healthy and parkways free of debris.

At your address:

___ fallen debris from trees located on **private property** has been relocated from the sidewalk/street by Village crews and needs to be discarded by you.

___ debris on the public parkway is from trees located on **private property** and must be disposed of by you. Failure to remove such by _____ violates ordinance 13-49.1 and could result in fines and/or court appearances.

Depending on the amount of brush, you may wish to contact a landscape service with a wood chipper. Another option is weekly yard waste collection provided by Republic. Republic will pick up bundled branches and yard waste bags on your regular garbage day.

For more information on services provided by Republic please see the back of this card.

For further information:
Forestry Division
434-5475 or 434-5476



5101 Walnut Ave. Downers Grove, IL 60515

Front

Republic Services

Republic provides yard waste service from April 1st to December 15th. Republic will pick up bundled brush and yard waste bags on your regular pickup day. Branches must be bundled according to the following guidelines:

- All branches must be less than 5" in diameter
- Branches can be up to 4 feet in length
- Bundles must weigh less than 60 pounds
- Bundles must be tied with a biodegradable string or jute twine
- All bundles require a yard waste tag.

Any questions regarding Republic service should be directed to the Public Works Department at 434-5460.

Special pickups of large quantities and/or branches larger than 5" in diameter may be arranged by calling Republic at (630) 964-3232.

Village Policy

In the event of **severe, Village-wide** storm damage, the Forestry Division may provide assistance to residents with brush disposal in the form of brush pickup or a free brush drop off site. These special services have been extended in the past, but are **not** regular operating procedures. After a large storm, information on the disposal of storm debris will be available through the *Village Corner* or by calling Public Works directly at 434-5460.

Back

Storm Brush Clean-up Post Card

For Your Information

Village crews are only picking up tree debris and branches from the public parkway trees along the street. Each property owner must dispose of branches from private trees themselves. Yard waste collection occurs from April 1st to December 15th on the regular garbage pick up day. All bundles and bags must have a yard waste sticker. More information regarding brush disposal options may be obtained by calling the Public Works Department at 630-434-5460 or visiting the Village website at <http://www.dowers.us>.

Village of Downers Grove Forestry Division



Vegetation which obstructs or creates hazard for ROW

Public trees that obstruct or create hazards for the public right-of-way are removed as quickly as possible. Proper practices, such as barricading, marking with ribbon, etc..., are used to note any situations where public safety is a concern. Tree removal criteria are detailed in Chapter 6.

When private vegetation obstructs or creates a dangerous condition for the right-of-way, property owners are notified. Most situations are handled by Code Enforcement Officers who mail a letter (see *Notice of Violation* letter in Chapter 15) and a copy of municipal codes 24.104 (see Municipal Codes in Chapter 1). Code Enforcement Officers then follow-up with re-inspections and any fines or court appearances. At times, Forestry staff may send a brief postcard. The postcard describes the obstruction (see *Private Vegetation Obstruction* postcard).

Generally, once vegetation problems require more significant dollar amounts to remedy should the property owner not comply, Forestry staff then handles the situations instead of Code Enforcement Officers. This on occasion may be a large private tree that is obstructing or creating a hazard for the public right-of-way area.

In 2015, Forestry staff undertook the task of identifying large declining or dead ash trees that were located on private property adjacent to the public right-of-way. Many of these ash trees resembled the large declining ash tree shown in the parkway in the picture to the right. As private large dead/declining ash trees were found, Forestry Division staff marked the tree stems on the property and recorded the address in a log book sheets (see *Private property trees near ROW records* sheet). Forestry staff utilized a doorhanger and various formletters (see Appendix 1 in Chapter 15) to notify residents of the required removal needs. By the end of 2015, 85 properties, with a combined total of 136 large ash trees, were notified.



Private Vegetation Obstruction

Your Landscaping Needs Attention

The Village Forestry and Grounds Division has been notified of landscape materials causing an obstruction at your address. Obstructions fall under the forms of:

- Pedestrian or Traffic Obstruction
- Traffic Sign or Light Obstruction
- Vehicle Operator View Obstruction
- Create a Dangerous Condition

The Village Municipal Code 24-4 requires that the owner of the obstruction remedy the situation within 10 days of notification. The specific obstruction at your address is:

Thank you for your prompt attention,

If you have any questions please call 434-_____



Private Tree Notice Doorhanger

TREE REMOVAL NOTICE

The Village of Downers Grove Forestry Division inspects trees to ensure conditions are safe for pedestrians and motorists as they travel along the public streets.

While surveying trees in your neighborhood, the Forestry Division found ___ private tree(s) which pose a danger to the public area. These are marked with a red "X" at the base of the tree trunk. It is the property owner's responsibility to have these marked trees removed to avoid any tree or parts thereof from dropping and causing personal injury or property damage. Further information will be mailed to the property shortly.

Please contact the Forestry office at 630-434-5475 with any questions.



Village of Downers Grove
Public Works Forestry Division
5101 Walnut Avenue
Downers Grove, IL 60515

Tree Diameter Measuring and Inspections

The measuring and updating of the tree inventory is essential for keeping the tree inventory current, and for planning and preparing any tree related contracts that rely on tree diameter measurements. These contracts include tree pruning, tree removal and tree treatment procedures (see Chapters 5, 6, and 7 respectively).

Tree diameter is measured in inches using a standard diameter measuring tape at a point 4.5 feet above the highest ground level at the tree, otherwise known as DBH (Diameter at Breast Height). In cases of low-branching trees with a crotch that is 4.5 feet or lower from the ground, the measurement is taken below the lowest branch. If a tree becomes multi-stemmed below 1 foot, each stem is measured independently.

Each summer, print-outs of sections of the inventory are generated for tree diameter measuring, primarily focusing on those trees scheduled for pruning in the next year. As trees are measured, numbers are recorded on the print-outs. Any corrections to the inventory are also noted including tree additions, tree removals, new tree plantings, and care needs. As needed, specific lists of trees scheduled for care or treatment are printed and diameters then re-measured.

All diameter measurements are entered into the computer tree inventory. The GBA Lucity asset management program allows the recording of all measurements and corresponding dates such that a diameter measurement history can be viewed for each tree over time. Staff then can review growth increases or lack thereof for individual trees.

With the pruning program back to a 5-year cycle (discussed in Chapter 5), tree diameter measurements effectively update at least 1/5 of the entire tree inventory annually. This also insures that tree measurements are never more than 5 years old and that any numbers, totals and summaries of the tree inventory contained in Chapter 2 are fairly accurate.

Mortality Inspections of Planted Trees

In addition to the overall general tree surveys conducted of all trees along Village streets, recently planted trees are specifically inspected to assess survival, mortality, and general health status. Overall, tree survival is tabulated and compared from year to year to note long-term survival.

Each summer, printouts are generated of all trees planted in the last year. These trees, purchased through the Suburban Tree Consortium program (discussed in Chapter 4), are part of a mortality review process included in the contracts with each of the supplying nurseries and planting contractors. Should any marginal condition or mortalities be found, followup replacements are arranged with the supplying nurseries and planting contractors.

Staff may also generate printouts of trees planted in recent years to evaluate if various trends are present. For example, inspecting a particular tree species where survival is noted for 1 year but not more than 3 years. Assessments of this type are key to deciding if a particular tree species should continue to be planted or if there are other causes involved. Individual tree species survival records are kept in an Excel spreadsheet format which is reviewed and updated annually.

Long-term tree survival is tabulated by comparing the number of trees originally planted in a given year to the number that are still alive. An overall summary is shown in Chapter 4 Tree Planting.

Priority Tree Removals, Poor Condition and Poor Quality Tree Species Surveys

The survey for priority tree removals, and poor condition and poor quality tree species is essential to maintaining safety in the street corridor.

A priority tree removal is a tree with a structural defect that may cause the tree or a portion of the tree to fall, causing personal or property damage. Many trees may not currently be hazardous but have conditions or features that may make them a priority removal at some point in the future. These conditions include hollow points in the stems and branches, and injuries from storms and car accidents. Notations have been recorded on the computer tree inventory where periodic and more specific inspections are required. This has streamlined the number of trees that need to be closely inspected. Currently, more than 2,000 trees have such notations. Sample notations include decay notes, storm damage incidents such as lightning strikes, or being located in the parkway adjacent to new house construction. When specific inspections are made, each tree is analyzed in its setting, and any possible corrective actions taken when appropriate. The tree is removed only as a last resort (see Chapter 6).

By using stem diameter class and health condition ratings, the inventory can be sorted by size, for those in poor condition, and for poor quality species that are more susceptible to breakage or decay, or any combination of factors.

Annual fall surveys are conducted on larger trees, especially the oaks, green ash, and black locust, for fungal growths that indicate the presence of extensive decay. If decay is considered to be substantial, the trees are removed. Photographs of both the fungal growths on the tree and then the wood cross-section once the tree has been removed have been useful to document decay problems. These photographs are kept on file in the Forestry office. Chapter 6 of this manual details more on tree removal criteria.

The exact methods used for these specific inspections and the frequency thereof are continuing to be refined. Currently, surveys for priority tree removals, and poor condition and poor quality tree species occur once a year.

Construction Related Inspections and Tree Protection Surveys

Parkway trees located adjacent to construction projects are periodically surveyed to ensure tree protection measures are being followed.

When permits are obtained for activities in the right-of-way near parkway trees, field inspections are made to locate existing utilities and assess where new utilities are proposed. Permit details are described in Chapter 9 of this Manual. Once permits have been issued, construction work is noted on the tree inventory so that the tree inventory can be sorted for all trees with such activity. A list is then printed for inspection. All parkway trees must be protected from damage and fencing must be installed around the trees. If tree protection fences are not maintained or trees are damaged, Municipal Codes 24.106 and 24.107 specify that the permittee must pay the loss in tree value and additional fines that increase with each offense. Fines for the first offense are \$2,000; the second offense \$3,000; and third and subsequent offenses are \$5,000 in addition to fees for lost tree value. In addition to fines and fees for lost tree value and noncompliance, permit applications can be denied or bonds can be withheld until all tree protection measures are rectified.

When parkway trees are next to construction projects, staff looks for the fences to be upright and for no signs of damage to the trees. Should staff identify problems, permittees are contacted, or invoices sent depending on each circumstance. Staff photographs and records all such problems for future reference. Staff is monitoring the effectiveness of fences and fines, noting how the Municipal Codes may need to be updated in the future, and refining the exact method and timing of inspections.

Right-of-way Boundary Locating and Field Marking Tree Inventory

The trees easiest to identify as parkway trees are those that are located between the street and the public sidewalk in the right-of-way. However, there are numerous areas in the Village where there are no public sidewalks or where the sidewalks are not along the property line between private and public property. Throughout the year and before the next area pruning contract (discussed in Chapter 5), Forestry staff locates property corners in these areas and field marks trees in the right-of-way with paint. A metal detector is used to locate iron posts marking property corners and unless information is available to staff, such as a plat of survey, it is assumed the iron represents the true property corner. Trees in the right-of-way are marked with a yellow paint dot on the street side of the stem. Jointly owned trees are marked with a blue paint dot on the street side of the stem (jointly owned trees are those where more than 20% of the stem is on either side of the property line). Table 2.17 lists the number of trees located in areas without sidewalks and behind sidewalks, as well as the number that are jointly owned. A postcard is sent to all residents with marked trees to explain the colors, and answer any questions (see *Paint Marking Trees in ROW* postcard). Any corrections and additions are also entered in the computer tree inventory.

Since 1993, yellow paints marks have been used exclusively to mark parkway trees in areas where there are no sidewalks or where the right-of-way extends beyond the sidewalk. Previous to 1993, yellow paint marks were used to designate which trees the contractual pruning service was to prune. In some areas then, faint yellow paint marks may be visible on parkway trees even though there is a public sidewalk. Previous yellow paint marks may also be visible on trees located in areas where a new sidewalk was just installed. In that paint fades with time, fresh yellow paint marks will be used only for parkway trees without sidewalks or those in the right-of-way behind sidewalks.

Paint Marking Trees in ROW Postcard

For Your Information

The Forestry Division was recently in your area surveying the trees along the street and marking any public parkway trees in the right-of-way with small paint marks on the street-side of the stem. The main purpose for these paint marks is to aid in the inventory of the public trees in the area, particularly where there are no public sidewalks or if public sidewalks are not along the property line. Trees which are completely in the public right-of-way are marked with yellow paint marks while trees located on the property line between private property and the right-of-way are marked with blue paint marks. Once marked, staff and others then can quickly identify which trees are public parkway trees. If you have any questions about the parkway trees or the paint markings, please contact the Forestry office at 630-434-5475 or kvonderheide@downers.us.

Kerstin G. von der Heide
Village Forester



Infectious Disease Surveys

Several times throughout the growing season, windshield surveys are conducted of both public and private trees to search for currently incurable infectious diseases such as Dutch elm disease, oak wilt and pine wilt.

Dutch Elm Disease (DED) is caused by a fungus which grows under the bark of susceptible elm trees and plugs the conductive tissues of the tree. It is spread to elm trees by either the feeding of the elm bark beetle or root grafts between healthy and infected elms.

Oak wilt disease is caused by a fungus which grows under the bark of susceptible oak trees and plugs the conductive tissues of the tree. It is spread by either root grafts between trees or to fresh wounds by sap-feeding insects which have moved from an infected tree transporting the disease with them.

Pine wilt disease is a complex disease with a variety of causes including pine wood nematodes (which colonize the wood), blue stain fungus (which stains the interior of the wood and interferes with water uptake), pine bark beetles, adverse weather or soil conditions, and tree age. Any one or a combination of these factors can result in death of susceptible pines.

Of these three diseases, DED has been the most prevalent in the community as a whole. In August of 1956, the first case of DED in the Village was confirmed. The first ordinance requiring removal of trees infected with DED was passed by Council in July, 1957. Various elm spraying programs were undertaken between 1960 and 1969, as well as in 1976 and 1978, unsuccessful attempts to prevent infection were made with pressure injection of systemic fungicides in parkway trees. Since then, basic sanitation or removal of trees infected with DED and regular pruning of elms has been the most cost effective control of DED.

The combination of a declining number of susceptible elms in the parkway, the establishment of a regular pruning cycle, and the prompt removal of infected trees throughout the community has resulted in a low number of annual elm losses since the early 1980's. Tree inventories of American and Red elms over the decades show the decline: in 1956 there were 4722 elms, in 1966 there were 3272 elms, and in 1976 there were 1338 elms. Currently, Table 2.3 lists less than 500 American and Red elms. Table 3.2 lists the annual parkway elm tree losses from 1956 to the present.

When public trees are infected with infectious diseases, the trees are marked and the removal guidelines stated in Chapter 6 are followed. When DED is the disease present, the Dutch Elm Disease brochure is distributed (see *Dutch Elm Disease* brochure). If susceptible elms are in the vicinity of the infected tree, the infected tree is girdled. This procedure involves making a two

inch cut through the bark and outer wood around the trunk of the tree. This girdle can disrupt the downward movement of the fungus and prevent its spread to surrounding trees via root grafts before removal can take place.

When private trees are found with infectious diseases, Forestry Division staff marks the tree stems on the property and records the address in a log book (see *Private property diseased tree records* sheet). A door hanger is left indicating the tree species marked (see *Diseased tree notice* door hanger). When DED is the disease present, the Dutch Elm Disease brochure is also distributed (see *Dutch Elm Disease* brochure). A form letter describing the infectious disease and removal requirements (see Appendix 1 Form Letters), a copy of Municipal Code 24.105 (see *Municipal Codes Chapter 24* included in Chapter 1 of this manual) and list of licensed tree removal companies are sent by mail to the property owner. If trees are not promptly removed in a short timeframe, as needed staff tapes a second letter to the property residence front door and a notarized sheet indicating the diseased tree notice was delivered is signed (see *Notarized delivery notice*). From the time the second letter is delivered, the property owner has thirty days in which to remove the trees. Table 3.3 summarizes the number of trees that were marked on private property annually.

Should trees with infectious disease not be removed in thirty days, forestry staff may exercise either of 2 options for a continuing violation. The first option is a court citation which involves a court appearance, payment of a fine between 75 and 750 dollars plus court costs (see *Section 1-15 of the Downers Grove Municipal Code*), and includes any actions to enforce and compel compliance with Municipal Code 24.105. Or the second option involves additional form letters and tree removal by the Village with the costs invoiced and/or filed as a lien against the property. A form letter is sent indicating that quotes for removal are being solicited for, and a quotation sheet is mailed out to tree contractors qualified for tree removal work (see *Private property tree removal quotation form*). After obtaining removal quotes, another form letter is sent indicating the costs involved plus an administrative fee (see *Administrative Regulation: User-Fee, License and Fine Schedule*). Once removal work has been completed, appropriate paperwork is filed with the Village Accounting Department to invoice the property and/or file a lien. All paperwork regarding infectious disease tree notices is kept for three years. Any paperwork where properties have had liens filed is kept permanently.

Table 3.2 Annual Parkway Elm Losses from DED

<u>Year</u>	<u>Number</u>	<u>Year</u>	<u>Number</u>
1956	0	1990	11
1957	25	1991	25
1958	27	1992	30
1959	43	1993	8
		1994	13
1960	75	1995	25
1961	158	1996	29
1962	132	1997	11
1963	291	1998	18
1964	238	1999	24
1965	304		
1966	157	2000	27
1967	308	2001	26
1968	303	2002	23
1969	261	2003	29
		2004	33
1970	154	2005	37
1971	95	2006	36
1972	87	2007	27
1973	135	2008	48
1974	225	2009	30
1975	207		
1976	237	2010	18
1977	392	2011	12
1978	174	2012	24
1979	137	2013	1
		2014	8
1980	76	2015	3
1981	87	2016	17
1982	39	2017	13
1983	21	2018	4
1984	21	2019	5
1985	17		
1986	18		
1987	9		
1988	5		
1989	10		

Table 3.3 Trees marked on private property due to Dutch elm disease, pine wilt or oak wilt

Year	Elms	Pines	Oaks
1994	102	6	0
1995	135	20	2
1996	174	18	0
1997	107	2	0
1998	42	0	0
1999	80	3	0
2000	33	0	0
2001	23	0	0
2002	201	0	0
2003	19	0	0
2004	116	0	0
2005	66	0	0
2006	49	0	0
2007	27	0	0
2008	59	0	0
2009	29	0	0
2010	41	0	0
2011	12	0	0
2012	10	0	0
2013	4	0	0
2014	5	0	0
2015	5	0	0
2016	1	0	0
2017	5	0	0
2018	0	0	0
2019	1	0	0

Diseased Tree Notice

DISEASED TREE NOTICE

The Village of Downers Grove Forestry Division monitors trees for signs of disease and insect infestations. Both public and private trees throughout the Village are monitored since diseases and insects do not observe property boundaries.

The Forestry Division surveys trees for Dutch Elm Disease, Oak Wilt, and Pine Wilt. No cure is known for any of these diseases, so early detection and removal remain the best method against further spread of these diseases.

While surveying trees in your neighborhood, the Forestry Division found diseased _____ on your property and marked any with a red "X" on the trunk. It is the homeowner's responsibility to have the tree removed. Removal instructions and further information will be mailed to you shortly.

Any questions, please contact the Forestry office at 630-434-5475.



Village of Downers Grove
Public Works Forestry Division
5101 Walnut Avenue
Downers Grove, IL 60515

INFECTIOUS DISEASES

Infectious Diseases have the ability to spread to other trees of the same Genus or Species.

There are 3 common infectious diseases in the Downers Grove area. These are Dutch Elm Disease, Oak Wilt, and Pine Wilt.

Dutch Elm Disease and Oak Wilt are both caused by a fungus.

Dutch Elm Disease is a fungus that grows inside the tree and plugs up the water conductive vessels. The tree will have wilting leaves that will brown and fall off. There will also be brown streaking in the wood under the bark of infected tree parts. Dutch Elm Disease is spread by Elm Bark Beetle insects, and can be passed from one tree to another if their roots are touching.

Oak Wilt is a fungus that is closely related to Dutch Elm Disease but is specific to the Oak trees. Oak wilt may be spread by Oak Borers and also can spread to other Oaks if their roots are touching.

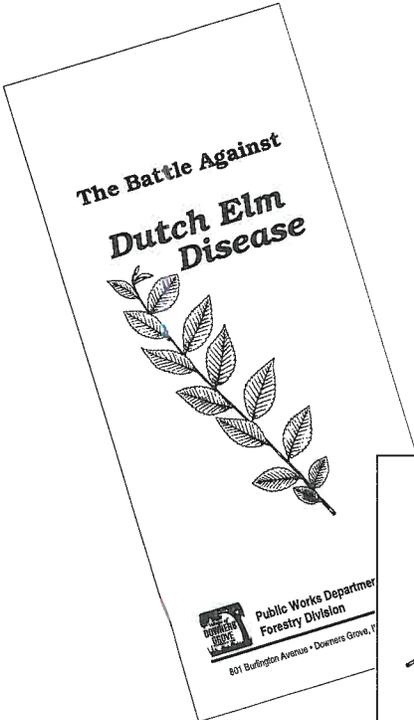
Pine Wilt is sometimes referred to as a "complex". Pines that are infected by Pine Wilt often exhibit 4 main problems. Any combination of these 4 problems can cause death of the tree. The first is stress. Water stress in times of high temperatures and drought weaken the tree. This allows for nematode infestation. Nematodes are microscopic worms that plug the conductive vessels. Pine Sawyer Beetles attack weakened trees. These beetles can spread the nematodes and a fungus and create wounds that may become infected with "Blue Stain" fungus. This often causes a quick death to the tree.

These problems are termed "Infectious" because they can spread from tree to tree. That is why early detection and removal is so important to maintain tree health of non-infected trees.

Front

Back

The Battle Against Dutch Elm Disease Brochure



Dutch elm disease (D.E.D.), a disease caused by the fungus *Ceratocystis ulmi*, was first reported in Illinois in 1950 and has since killed many thousands of elms statewide. The fungus grows inside an infected elm interfering with water passage from the roots up into the body of the tree. Lack of water causes wilting followed by certain death. The American elm, once one of the most commonly planted urban trees, is extremely susceptible to D.E.D. European elms have also suffered considerably, whereas Asiatic elms have proven highly resistant.

Transmission

Elm bark beetles are small insects which breed beneath the bark of elm wood in diseased or declining trees, dead branches, and cut firewood. Newly hatched beetles emerge from infected wood with spores of the D.E.D. fungus attached to their bodies. These beetles fly to the tops of healthy elms and begin to feed in small twig crotches, where they introduce the fungus into healthy trees. The emergence of two generations provide two opportunities to spread D.E.D. annually, the emergence of adult beetles from mid May to mid June, and their offspring in August.

Root grafts are likely to occur between elms within 30 to 50 feet of each other. Root proximity allows the fungus in an infected tree to enter into a healthy tree. Grafting is common in many urban and suburban communities where entire stretches of parkway have been planted with elms.

Detection

Scouting is done on a regular basis throughout the summer season in order to locate as many diseased trees as possible on Village as well as private property. Private property is entered only if trees thereon are suspected of carrying D.E.D. Because it is the aim of the Village to preserve trees whenever possible, prompt removal of public as well as private trees infected with D.E.D. is a priority to protect the remaining elms throughout the community.

Symptoms vary according to the season in which infection occurs and whether it results from bark beetle feeding or root grafting.

External symptoms of Dutch elm disease are most easily detected during spring and early summer. Leaves on affected branches turn light green or yellow and either fall off the tree or curl up and turn brown, a condition known as *flagging*. External signs of infection spread by beetle feeding typically start in a few branches in the upper crowns of the tree. Elms infected through root grafts may show flagging in the lower branch sprouts first and usually die more rapidly than those infected at the crown by bark beetles.

Late season infection often develops slowly the first year, appearing as general yellowing which can be confused with normal fall coloration. Such trees generally leaf out the following spring, then wilt suddenly and dramatically. If the health of a tree with these symptoms is questionable, further investigation will include checking for internal signs of D.E.D.

Internal symptoms are quite helpful in field diagnosis of D.E.D. When bark is peeled back from wilted branches, the wood underneath appears brown, either in streaks or patches. In cross section brownish may appear as a series of dots in the outer ring, or the ring may be completely brown. If internal discoloration does not appear in the wilted branch area or if they are difficult to reach, branches or trunk below wilted twigs may be examined. With root transmitted infections, trunk wood often shows discoloration much earlier and more intensely than with beetle feeding infection.



Control Measures

Sanitation is the primary means of D.E.D. control in Downers Grove. It calls for the destruction of beetle-brood wood through the prompt removal of all infected trees as well as dead or dying elm branches or trees. Sanitation also requires that no cut elm wood be saved for firewood unless the bark has been completely removed, a measure which will prevent beetle breeding. Use of chipped elm material for mulching does not pose a problem as wood chips are not large enough for beetles to use as breeding sites.

Pruning is a secondary means of preventing the spread of D.E.D. The Village's five year pruning cycle reduces the amount of dead wood in parkway trees. Maintenance pruning takes place in winter to prevent fresh summer pruning wounds from attracting bark beetles. Elms on private property should also be kept free of dead wood with periodic pruning. Occasionally, because several strains of the D.E.D. fungus exist and their rate of spread through a tree differs, diseased limbs can be pruned out and the remaining portion of the tree saved. This measure is effective only when infection is confined to a small portion of the crown.

Girdling is a procedure performed on trees diagnosed with advanced D.E.D. A two inch cut is made around the base of infected trees scheduled for removal. This girdle can disrupt the downward movement of the fungus and prevent its spread to surrounding trees via root grafts before removal can take place.

On the Horizon

Research continues with injection treatments for healthy trees as a preventative measure. Though these treatments may be expensive, with hybrid elms also being reported. Research with hybrid elms also continues at the Merion Arboretum in Lisle, as well as other national form and leaf shape of a tree with the desirable resistance of Asiatic elm. Research types have already been planted in national parkways on a trial basis. Several hybrid types have already been planted in Village parkways on a trial basis. With the continued optimism of these experimental trees, we are optimistic that elms will soon be reintroduced into the urban forest.

For additional information, contact:
Downers Grove
Forestry Division
434-5475 or 434-5478



STATE OF ILLINOIS

COUNTY OF DUPAGE

VILLAGE OF DOWNERS GROVE

I certify that I, _____, an employee of the Village of Downers Grove, taped an envelope onto the _____ at the address of _____ on the date of _____. This envelope contained a Notice of Diseased Trees on Private Property and The Downers Grove Municipal Code Section 24-6 informing the Owner/Occupant of the property of required diseased tree removal.

Employee

Subscribed and sworn to me on this date _____

Notary Public

**VILLAGE OF DOWNERS GROVE
PRIVATE PROPERTY TREE REMOVAL QUOTATION FORM**

The undersigned contractor offers to provide to the Village of Downers Grove, an Illinois municipal corporation, tree removal services to be paid on a per tree basis.

Specifications for tree removal: the contractor shall remove all trees designated for removal by the Public Works Department Forestry Division to a point four (4) inches above the adjacent ground level. At each address, the trees are marked with red paint on the trunk and the location is listed below. The contractor shall dispose of all limbs, trunks, and wood chips in accordance with applicable State, County, and Municipal ordinances and regulations. The contractor shall take all necessary precautions to eliminate damage to public or private property. No vehicles shall travel over private property, other than driveways or areas designated for vehicles, to aid in tree removal unless the property is protected from damage (use of plywood, etc.).

Specifications for work initiation and payment terms: quotations shall be accepted only from contractors licensed by the Village of Downers Grove for tree removal, and that meet the minimum limits of insurance. Trees shall be removed within ten (10) days from the time the contractor is notified to begin work. Should a tree listed below be removed by the property owner, the contractor will be paid for only those trees actually removed. The quoted prices shall remain in effect for a period of 15 days.

<u>TREE LOCATION</u>	<u>PRICE</u>
_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____
TOTAL	\$ _____

CONTRACTOR:

VILLAGE OF DOWNERS GROVE

Name _____

By _____

Address _____

City Zip _____

Title _____

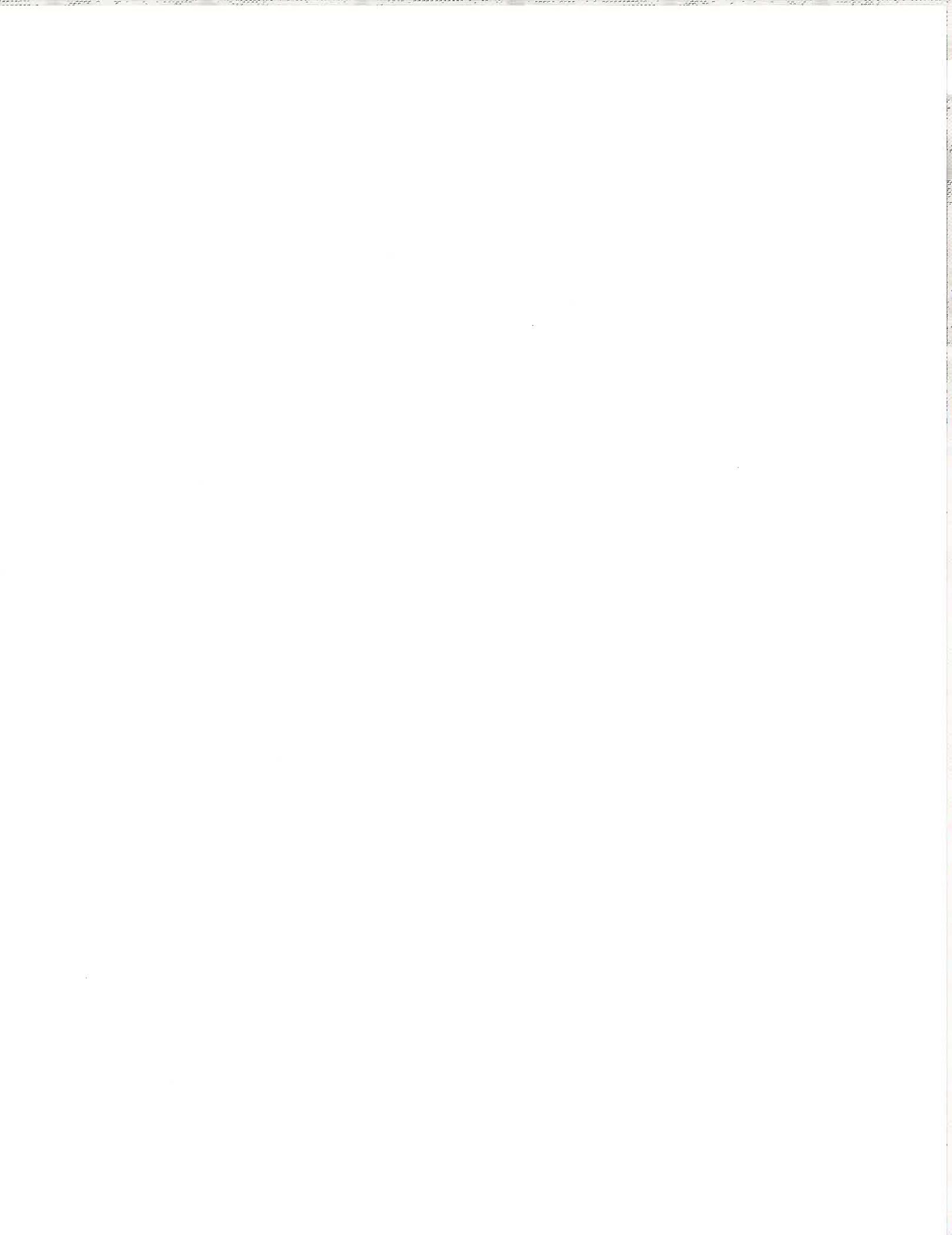
Phone _____

Date _____

Submitted by _____

Quotation due by _____

THIS PROPOSAL, WHEN ACCEPTED AND SIGNED BY AN AUTHORIZED SIGNATORY OF THE VILLAGE, SHALL BECOME A CONTRACT BINDING UPON BOTH THE PERSON, PARTNERSHIP OR CORPORATION, TO SUPPLY OR PERFORM AS SPECIFIED AND UPON THE VILLAGE TO ACCEPT THE PRODUCT OR SERVICE.



Additional Tree Disease and Disorder Surveys

Other diseases and disorders which affect trees are monitored or noted, and any appropriate control measures are taken as needed. The following lists are some of the more common diseases and disorders which may be present.

Tree Diseases

anthracnose
apple scab
ash decline
blights
cankers
fungus rots and decays
leaf spots
rusts
verticillium wilt
wetwood

Tree Disorders

air pollution
animal related injuries
chlorosis
construction related injuries
drought
girdling roots
mechanical injuries - lawn mowers
pesticide injury
salt injury
scorch
soil related problems
weather related injuries - lightning, hail
winter injury

Insect and Other Pest Population Surveys

Insect and other pest populations which affect trees are monitored or noted, and any appropriate control measures are taken as needed. The following is a list of some of the more common insects and other pests that trees are inspected for.

Insects and Other Pests

aphids

bagworm

beetles - elm bark, elm leaf, Japanese, Asian longhorn, emerald ash borer

borers - clearwing moth, bronze birch, flat-headed, maple petiole

bugs - ash plant, boxelder, honeylocust plant

cankerworm

carpenter ants

caterpillar - eastern tent, gypsy moth

cicadas - annual, 17 year

earwigs

galls - ash flower, hackberry, maple bladder, oak

leafhoppers

leafminers

mites - honeylocust, spider, spruce

sawflies - conifer

scale - cottony maple, lecanium, oystershell

Various control measures are detailed in Chapter 7.

Inspections Requested by Residents

Throughout the year, residents may request an inspection of the parkway trees for health concerns, or they may report a potential structural problem. Residents may also request parkway restoration due to utility activities or damage suffered during an accident or snow plowing.

Tree and parkway inspections are scheduled within a week of the received request in accord with other Forestry Division functions. If residents are present at the time of the inspection, results are communicated directly. If they are not present, a door hanger is used to indicate findings (see *Forestry Grounds Inspection Notice* door hanger). At times a follow-up phone call is required or a letter is sent to better explain findings and how the Division will proceed. Most health related or general care questions can be answered with any of a variety of hand-outs available from the International Society of Arboriculture, the Morton Arboretum, and the USDA Cooperative Extension Service.

Starting in 2001, a computer program was implemented by the Community Response Center to track resident calls, emails and inquiries. The following table summarizes the numbers recorded for the Forestry Grounds Division. In general, more than 45% of the entries are for pruning requests and branch failures. Years with active summer storms have had more storm damage and pruning request related entries.

Calls/Requests/Emails to Community Response Center for Forestry Grounds

Year	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Total
2001	0	34	31	71	95	206	166	63	63	26	16	3	774
2002	53	28	23	11	52	94	80	61	46	42	12	1	503
2003	1	6	41	68	151	165	375	135	121	69	23	2	1157
2004	7	4	40	69	142	118	103	108	55	42	146	46	880
2005	1	10	22	53	117	134	164	133	77	83	44	11	849
2006	11	11	16	91	108	182	181	152	86	95	24	75	1032
2007	17	41	44	56	167	148	153	158	132	61	16	56	1049
2008	3	4	24	49	71	335	121	91	58	53	23	9	865
2009	3	14	33	58	69	305	134	171	60	49	15	8	968
2010	12	5	21	65	65	169	90	119	101	53	31	8	768
2011	5	12	25	41	74	166	425	258	117	96	35	52	1406
2012	3	14	38	70	129	139	136	100	69	44	19	8	769
2013	8	12	11	31	134	152	208	84	91	81	39	10	861
2014	9	4	43	76	127	195	144	126	121	56	23	14	942
2015	10	15	13	94	120	149	116	136	110	57	47	11	878
2016	8	20	19	10	83	115	101	106	67	35	26	16	606
2017	17	14	28	47	122	133	87	67	58	53	17	18	661
2018	5	8	29	28	105	121	89	92	99	60	74	57	778
2019	8	44	28	45	78	134	117	105	71	65	38	24	757
2020													

