



CITY COUNCIL AGENDA ITEM

Date: February 3, 2016

To: Brian Kischnick, City Manager

From: Mark F. Miller, Director of Economic & Community Development
R. Brent Savidant, Planning Director

Subject: PUBLIC HEARING – ZONING ORDINANCE TEXT AMENDMENT (File Number ZOTA 248) – Woodland Protection

This item was initiated by the Planning Commission who recognized that the Zoning Ordinance does not regulate woodland protection.

The provisions were discussed by the Planning Commission at previous meetings. The proposed provisions were created specifically for Troy; they are not cookie-cutter. The Woodland Protection provisions are intended to strike a balance between development and private property rights and protection of Troy's valuable natural resources, community character, and property values.

Draft amendments include the following:

- Tree mitigation/replacement is required. Tree preservation is incentivized but not required.
- Tree mitigation/replacement applies to any property that requires site plan approval.
- Tree mitigation/replacement shall not apply to single-family developments that do not require site plan approval.
- Exceptions are provided for dead/dying/diseased trees and non-desirable/invasive species.
- The provisions recognize that all applications and site conditions are different and allow for flexible and creative approaches for tree management.

The Planning Commission held a public hearing on this item on December 22, 2015, and recommended approval of the text amendment with a 7-0 vote. The attached PowerPoint presentation that was presented at the public hearing provides additional background.

This item was discussed by the Planning Commission at five (5) meetings. If City Council needed additional background on the item, they could schedule a study session further understanding and discussion.

In preparation for Monday night please see the attached presentation for more information.

Approved as to form and legality:

Lori Grigg Bluhm, City Attorney

Attachments:

1. Zoning Ordinance Text Amendment Public Hearing Draft
2. Planning Commission minutes from December 22, 2015 Regular meeting (excerpt)

CITY OF TROY

AN ORDINANCE TO AMEND
CHAPTER 39 OF THE CODE
OF THE CITY OF TROY
CITY COUNCIL PUBLIC HEARING DRAFT

The City of Troy ordains:

Section 1. Short Title

This Ordinance shall be known and may be cited as an amendment to Chapter 39, Zoning Ordinance, of the Code of the City of Troy.

Section 2. Amendment

Chapter 39 of the Code of the City of Troy is amended as follows:

Revise Section 8.05.A to read as follows:

9. A tree ~~inventory preservation plan~~ in accordance with Article 13 ~~the City of Troy Landscape Design and Tree Preservation Standards~~ shall be attached to all applications for Site Plan Approval. This requirement may be waived by the Zoning Administrator, in those instances where the Topographic Survey and/or other written information provided by the applicant demonstrate that the nature of the site is such that a tree inventory Tree Preservation Plan would not be applicable, or would serve no practical purpose.
10. A landscape plan prepared in conformance with Article 13 ~~the City of Troy's Landscape Design and Tree Preservation Standards~~.

Add Section 13.07 to read as follows:

Section 13.07: Woodland Protection:

- A. Purpose and Intent. It is the intent of these regulations to help prevent unregulated and, in many cases, unnecessary removal of trees and related natural resources. The protection of trees, woodlands and woodland resources will promote the preservation of important physical, aesthetic, recreational and economic assets for both present and future generations. Specifically, it is found that:
 1. Trees and woodlands provide for public welfare and safety through the reduction of erosion, siltation, and flooding;
 2. Trees and woodlands help protect water quality by protecting groundwater recharge areas, reducing risk of groundwater contamination and maintaining base flows in streams and rivers, thus reducing the risk of

- degrading vegetation, wildlife, wetlands and surface water systems throughout the city;
3. Trees and woodlands increase the economic value of land for most uses;
 4. Tree and woodland growth protects public health through the absorption of air pollutants and contamination and reduces carbon dioxide content of the ambient air; and
 5. Tree and woodland growth serves as an essential component of the general welfare of the City by maintaining natural beauty, recreation, and natural heritage.

The purpose of this section is as follows:

1. To encourage the preservation of trees and related natural resources of the woodland ecosystem on undeveloped and underdeveloped land and in connection with the development of land;
2. To provide for the protection, preservation, proper maintenance and use of trees and woodlands in order to minimize damage from erosion and siltation, loss of wildlife and vegetation, and/or from the destruction of the natural habitat;
3. To protect trees and woodlands (including woodland resources) for their economic support of local property values when allowed to remain uncleared and/or unharvested in whole or in significant part, and for their natural beauty, character, and ecological or historical significance; and
4. To provide for the paramount public concern for these natural resources in the interest of the health, safety and general welfare of the residents of the City, consistent with Article II, Section 201 of the Michigan Zoning Enabling Act of 2006, and in keeping with Article IV, Section 52 of the Michigan Constitution of 1963 and the intent of the Michigan Natural Resources and Environmental Protection Act, PA 451 of 1994.

B. Applicability:

1. The provisions of tree protection shall apply prospectively to all parcels in the City where site plan review is required as set forth in Section 8.02, and any Subdivision as set forth in Chapter 41 of the City Code.
2. If it is determined that based on associated historical aerial photographs or other evidence, an owner or developer of property required to comply with this section has removed or cleared protected trees within five (5) years of the time of site plan or subdivision approval , the Planning Commission may require the property owner or developer to install additional landscaping as required by the site plan or subdivision approval and to offset the impact of the new development upon adjacent properties.

C. Protected Trees as Defined:

1. Landmark Tree: A woody plant, in a healthy, live condition (has a health and condition standard factor of over 50% based on standards established by the International Society of Arboriculture). The following species that meet the minimum size (DBH) requirement are considered landmark trees.

| Common Name | Botanical Name | Size (inches) |
|------------------------------------|--------------------------------|----------------------|
| Basswood | <i>Tilia</i> | 18" |
| Beech, American | <i>Fagus grandifolia</i> | 18" |
| Black Cherry | <i>Prunus serotina</i> | 18" |
| Black Walnut | <i>Juglans nigra</i> | 18" |
| Buckeye, Ohio | <i>Aesculus glabra</i> | 18" |
| Douglas Fir | <i>Pseudotsuga menziesii</i> | 18" |
| Fir | <i>Abies</i> | 18" |
| Kentucky Coffeetree | <i>Gymnocladus dioicus</i> | 18" |
| London Planetree/American Sycamore | <i>Platanus</i> | 18" |
| Pine (All species) | <i>Pinus</i> | 18" |
| Spruce | <i>Picea</i> | 18" |
| Tulip Poplar | <i>Liriodendron tulipifera</i> | 18" |
| Hickory | <i>Carya</i> | 16" |
| Honey Locust | <i>Gleditsia tricanthos</i> | 16" |
| Maple (Red) | <i>Acer rubrum</i> | 16" |
| Maple (Sugar) | <i>Acer saccharum</i> | 16" |
| Oak (All species) | <i>Quercus</i> | 16" |
| Arborvitae | <i>Thuja</i> | 12" |

| | | |
|-----------------------|--------------------------------------|-----|
| Bald Cypress | <i>Taxodium distichum</i> | 12" |
| Birch | <i>Betula</i> | 12" |
| Black Tupelo | <i>Nyssa sylvatica</i> | 12" |
| Cherry, Flowering | <i>Prunus spp.</i> | 12" |
| Crabapple/Hawthorne | <i>Malus/crataegus</i> | 12" |
| Dawn Redwood | <i>Metasequoia glyptostroiboides</i> | 12" |
| Ginkgo | <i>Ginkgo</i> | 12" |
| Hackberry | <i>Celtis occidentalis</i> | 12" |
| Hawthorn | <i>Crataegus</i> | 12" |
| Hemlock | <i>Tsuga</i> | 12" |
| Larch/Tamarack | <i>Larix</i> | 12" |
| Magnolia | <i>Magnolia</i> | 12" |
| Pear | <i>Pyrus spp.</i> | 12" |
| Persimmon | <i>Diospyros virginiana</i> | 12" |
| Sassafras | <i>Sassafras albidum</i> | 12" |
| Sweetgum | <i>Liquidamber styraciflua</i> | 12" |
| Yellow Wood | <i>Cladrastis lutea</i> | 12" |
| Blue-Beech/Hornbeam | <i>Carpinus caroliniana</i> | 8" |
| Butternut | <i>Juglans cinera</i> | 8" |
| Cedar of Lebanon | <i>Cedrus spp.</i> | 8" |
| Chestnut | <i>Castanea</i> | 8" |
| Dogwood, Flowering | <i>Cornus florida</i> | 8" |
| Hop-Hornbeam/Ironwood | <i>Ostrya virginiana</i> | 8" |

| | | |
|--|------------------------------------|----|
| Maple, Mountain/Striped | <i>Acer spicatum/pensylvanicum</i> | 8" |
| Paw Paw | <i>Asimina triloba</i> | 8" |
| Redbud | <i>Cercis canadensis</i> | 8" |
| Serviceberry | <i>Amelanchier</i> | 8" |
| Any healthy tree with a DBH 24" or greater, (except invasive species), or a healthy tree of the species described above with the minimum DBH listed. | | |

2. Woodlands: Trees in a Woodland, which is defined as one-quarter (1/4) acre or more of contiguously wooded land where the largest trees measure at least six (6) inches in diameter at breast height (DBH). The acreage is to be measured from the dripline to dripline of trees on the perimeter. Contiguous shall be defined as the majority of the one-quarter (1/4) acre being under the vegetation dripline.
- D. Tree Inventory. A Tree Inventory is required as a component of the preliminary site plan submission as set forth in Section 8, and any Subdivision as set forth Chapter 41 of the City Code.
1. Tree Inventory shall contain the following:
 - a. Location of all trees over six (6) inches in DBH.
 - b. Common and botanical names of all identified trees, their size in inches at their DBH, and a description of each tree's health.
 - c. Indication of all trees to be removed.
 - d. Indication of all trees to be preserved.
 2. A Tree Inventory must be prepared by either a certified forester or Registered Landscape Architect.
- E. Tree Replacement:
1. When as part of a site plan or subdivision approval the Troy Planning Commission authorizes the removal of Landmark Trees and trees within a Woodland, the removal shall be mitigated as follows:
 - a. Woodland Trees six (6) inches or larger DBH shall be mitigated by installation of replacement trees equal to a minimum of fifty percent (50%) of the original DBH removed.
 - b. Landmark Trees (including those located within Woodlands to be removed) shall be mitigated by installation of replacement trees equal to a minimum of one hundred percent (100%) of the original DBH of the tree(s) removed.
 - c. Replacement trees shall be non-sterile varieties of species native to southeast Michigan, and not prohibited by Chapter 28 of the City of

Troy ordinance. The minimum size of a deciduous replacement tree shall be two and one-half (2.5) inch caliper. The minimum size of a coniferous replacement tree shall be six (6) feet in height. Deciduous replacement of one-half (.5) caliper inch is equal to one foot in height for coniferous replacement.

2. A Tree Replacement Plan must be prepared by either a certified forester or Registered Landscape Architect. The property owner shall have the proposed Tree Replacement Plan approved by the Planning Commission.
3. These tree replacement requirements are separate from and in addition to the landscape requirements set forth in Article 13.02

F. Tree Replacement Alternatives:

1. Any identified Woodland and Landmark Tree that is retained onsite as part of the development may count towards two (2) times the inch for inch replacement requirement.
2. When reviewing site plans, the Planning Commission prioritizes Landmark and Woodland Tree protection and mitigation in order as follows:
 - a. Protecting and preserving existing onsite Landmark and Woodland Trees.
 - b. Providing all required mitigation on the site of development.
 - c. Paying into a tree fund, only if protecting and preserving on site, or mitigation on site has been explored by applicant and due to unique circumstance as outlined in section 3 below is not possible.
3. The Planning Commission may allow for tree replacement off-site at the request of the applicant when site factors including the size of the parcel (no available area for planting), tree condition or development requirements may make conformity to this section difficult or undesirable. If the Planning Commission permits the applicant to plant off-site the applicant shall be required to pay the equivalent fee of the cost of the tree replacement, including the cost of installation to the City Tree Fund. The City Tree Fund shall be used to plant trees on public property.

G. Exemptions from Replacement:

1. The following shall be exempt from the requirements of these Tree Replacement as set forth in Section 13.07.F:
 - a. Parcels of land that are not subject to site plan review.
 - b. Tree trimming and removal necessary to the operation of essential service facilities of a municipal or other governmental department or agency or public utility franchised to operate in the City.
 - c. Tree clearing within an existing public road right-of-way or an existing private road easement.
 - d. The removal of any tree which is demonstrated by the property owner to the Zoning Administrator or designee's satisfaction to have a health and

- condition standard factor of less than 50 percent based upon the standards established by the International Society of Arboriculture.
- e. Trees that are considered invasive by the International Society of Arboriculture
 - f. Removal of trees that have become a potential danger to human life or property.
- H. Tree Protection. Protected trees, shall be preserved to the greatest extent practicable through the use of site development techniques including but not limited to the following:
1. In general, Landmark Trees should not be removed for development. Site design should consider any Landmark Tree on a site as an important design element.
 2. Locate development in areas of the site that are already disturbed or cleared of trees and woody vegetation.
 3. Minimize clearing and grading of the site by working with the site's existing topography. Grading, roads, walkways, utility lines, and all other aspects of soil disturbance shall be minimized to the extent possible considering standards of sound design and public safety. Clearing for buildings should be limited to the smallest area needed for safe and effective building work.
 4. Use retaining walls and other techniques to minimize grade changes near trees.
 5. Maintain trees along the perimeter of sites to provide buffer.
 6. Maintain grades and moisture conditions within the Critical Root Zone (CRZ) of trees, being that area in which the loss, disturbance, or damage to any roots will adversely affect the tree's long term health and structural stability. Many of the native hardwood trees: oaks, hickories, maples and beeches, for example, and most old trees do not adapt to environmental changes brought about by construction. Grading changes should not occur within the CRZ of a tree. In addition, grading on a site should neither increase or decrease moisture conditions within a tree's CRZ. The area of concern around an important tree may be significantly larger than the CRZ. The drip line of the tree shall be used for comparison, and if larger than the CRZ, the dripline should be used to determine how best to protect an important tree.
 7. Locate utility lines away from trees to be retained. If this is not possible, install utility lines through bored tunnels instead of trenches.
 8. Conduct any necessary excavation around trees by hand.
 9. Applicant must provide a Tree Protection Plan that is compliant with requirements as set forth Chapter 28, Tree Regulations.

10. Upon reasonable notice to the property owner and/or Applicant, the City shall have the right to periodically inspect the site during site plan review, land clearing, and/or construction to ensure compliance.

I. Tree Removal as a Result of Construction Activity:

1. Any protected tree identified for preservation on an approved site plan that has died within three years (3) of the start of construction shall be replaced under the appropriate Landmark Tree and Woodland replacement requirement.

J. Site Plan Approval and Enforcement:

1. Tree protection and mitigation as approved by the Planning Commission is a condition of Site Plan approval and enforced as such.

K. Appeals and Variances. All appeals or requests for variances from the provisions of this section shall be made to the City of Troy Zoning Board of Appeals in accordance with Article 15 of the City of Troy Zoning Ordinance.

L. Violations and Penalties. Violations of the provisions of this section are violations of the City of Troy Zoning Ordinance and subject to Article 3 of the City of Troy Zoning Ordinance.

Section 3. Savings

All proceedings pending, and all rights and liabilities existing, acquired or incurred, at the time this Ordinance takes effect, are hereby saved. Such proceedings may be consummated under and according to the ordinance in force at the time such proceedings were commenced. This ordinance shall not be construed to alter, affect, or abate any pending prosecution, or prevent prosecution hereafter instituted under any ordinance specifically or impliedly repealed or amended by this ordinance adopting this penal regulation, for offenses committed prior to the effective date of this ordinance; and new prosecutions may be instituted and all prosecutions pending at the effective date of this ordinance may be continued, for offenses committed prior to the effective date of this ordinance, under and in accordance with the provisions of any ordinance in force at the time of the commission of such offense.

Section 4. Severability Clause

Should any word, phrase, sentence, paragraph or section of this Ordinance be held invalid or unconstitutional, the remaining provision of this ordinance shall remain in full force and effect.

Section 5. Effective Date

This amendment to the Zoning Ordinance shall take effect ten (10) days after publication, which shall be published within 15 days of adoption, as required the Michigan Zoning Enabling Act (Act 110 of 2006).

This Ordinance is enacted by the Council of the City of Troy, Oakland County, Michigan, at a regular meeting of the City Council held at City Hall, 500 W. Big Beaver, Troy, MI, on the _____ day of _____, 2016.

Dane Slater, Mayor

Aileen Dickson, City Clerk

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ZONING ORDINANCE TEXT AMENDMENT

9. **PUBLIC HEARING – ZONING ORDINANCE TEXT AMENDMENT (File Number ZOTA 248)**
– Woodland Protection

Mr. Savidant reported on the proposed Zoning Ordinance Text Amendment.

PUBLIC HEARING OPENED

Kerry Krivoshein, 1259 Ashley, spoke in support of the proposed text amendment. He addressed tree caliper size and suggested to list invasive species by botanical name.

PUBLIC HEARING CLOSED

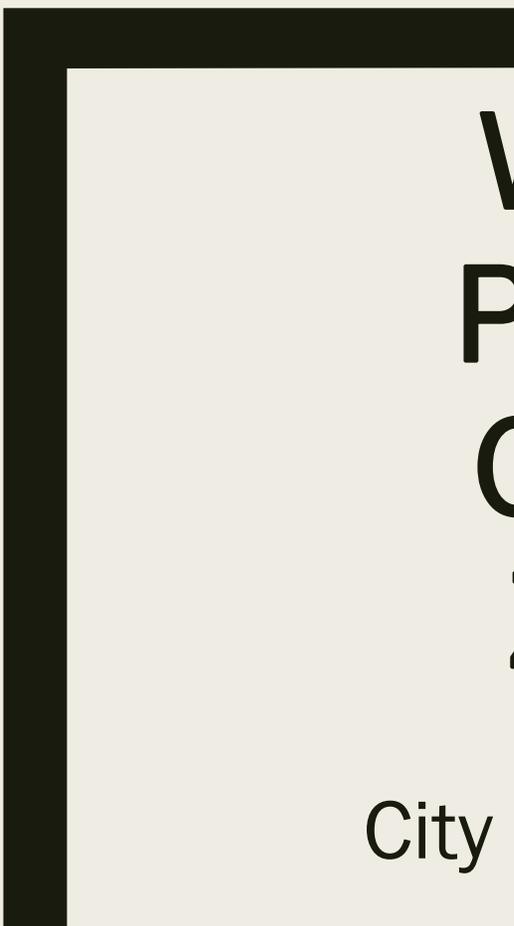
Resolution # PC-2015-12-078

Moved by: Kупpa
Seconded by: Krent

RESOLVED, That the Planning Commission hereby recommends to the City Council that Articles 8 and 13 of Chapter 39 of the Code of the City of Troy, which includes miscellaneous provisions related to woodland protection, be amended as printed on the proposed Zoning Ordinance Text Amendment.

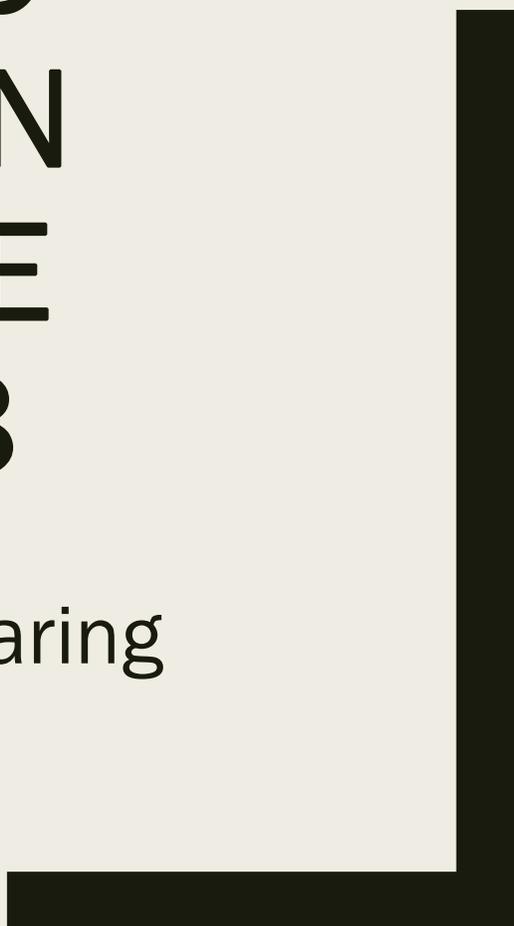
Yes: All present (7)
Absent: Hutson, Sanzica

MOTION CARRIED



**WOODLAND
PROTECTION
ORDINANCE
ZOTA #248**

City Council Public Hearing
February 8, 2016



Why

- Initiated by Planning Commission
- Most of the recent residential development sites are being clear-cut
- Residents including adjacent property owners and board members have expressed concern
- No incentive or requirement for woodland protection
- Loss of community character and quality of development

Finding the Balance

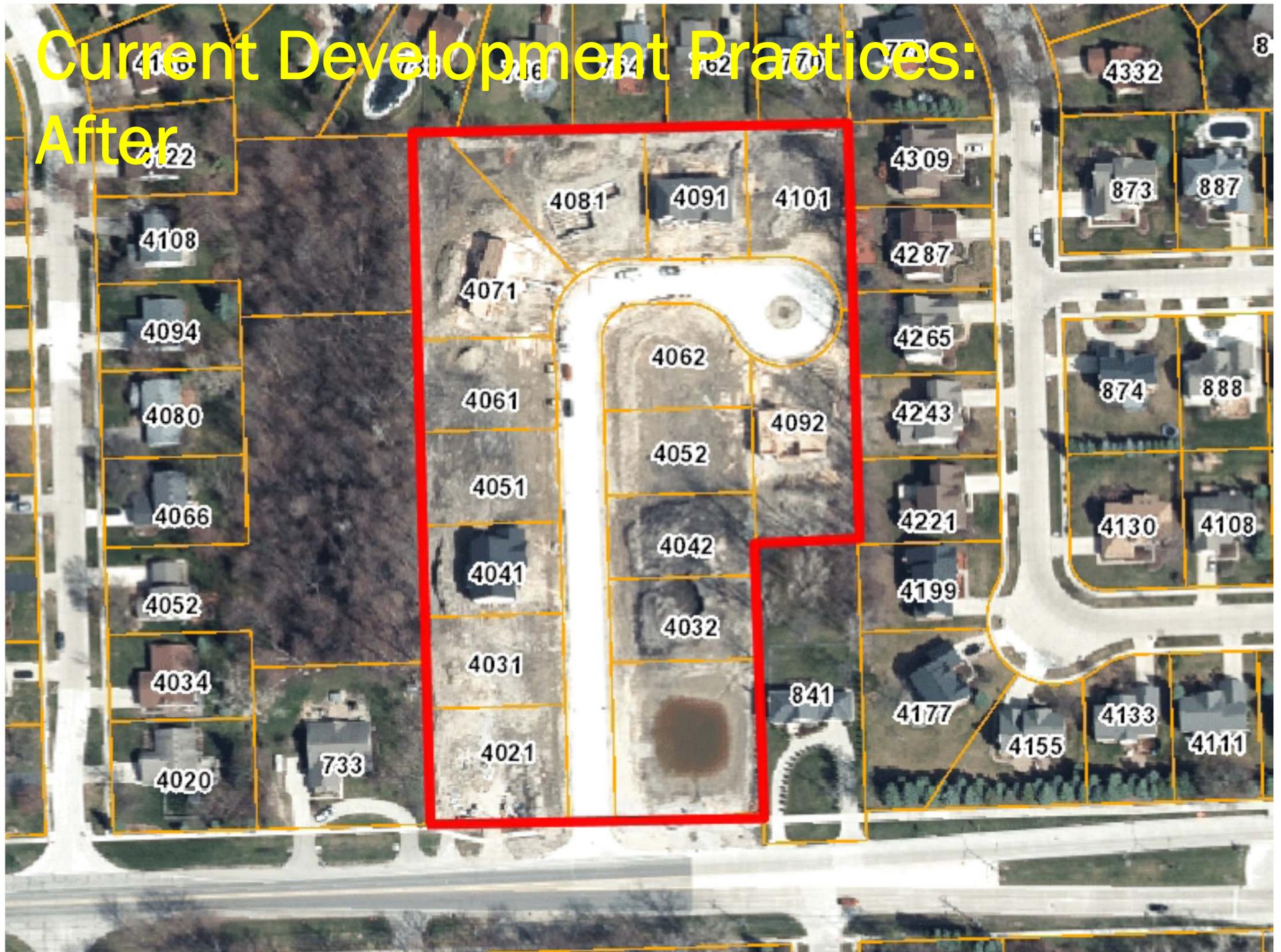
- **Development & private property rights**
- **Public health, safety & welfare**
- **Quality: Environmental, water & air**
- **Erosion, siltation & flooding prevention**
- **Community character**
- **Protection of property values**



Current Development Practices: Before



Current Development Practices: After



Guiding Parameters for Draft Ordinance

1. Protect What's Important

- *LANDMARK TREES - Quality tree of significant size*
- *WOODLANDS - Healthy, contiguously wooded areas*



Photo Credit: Paul Hitz



Photo Credit: Shareen Shafi

Guiding Parameters for Draft Ordinance

2. Don't Be Punitive

- *Do not require replacement of non-landmark and non-woodland trees*
- *Do not require replacement for invasive species, and dead, dying, or diseased trees*



Guiding Parameters for Draft Ordinance

3. Require tree replacement and incentivize, but don't require tree preservation.



Guiding Parameters for Draft Ordinance

4. Recognize that each site is unique
 - *Allow for creative approaches for tree management*
 - *Provide options for developer*

Guiding Parameters for Draft Ordinance

5. Tree replacement shall only apply to any property that requires site plan approval.

DOES NOT APPLY TO SINGLE FAMILY HOMES THAT DO NOT REQUIRE SITE PLAN APPROVAL

Diameter at Breast Height (DBH)

The diameter of the trunk of a tree measured at breast height, or 4.5' above the ground.



Public Outreach

- Considered by Planning Commission at five public meetings
- No comments at public hearing
- Draft Ordinance circulated to local developers

“Protect What's Important”

- LANDMARK TREE:
 - Often referred to as “Heritage Trees”
 - A woody plant in a healthy, live condition that meets the minimum size requirement for that species
 - Accepted definition by International Society of Arboriculture
 - Does not include invasive species



“Protect What’s Important”

- WOODLANDS:

- One-quarter ($\frac{1}{4}$) acre or more of contiguously wooded land
- Largest trees measure at least six (6) inches DBH



“Don’t Be Punitive”

Tree removed under the following conditions do not require replacement:

- Non-Landmark and Non-Woodland Trees
- Dead, dying, or diseased trees.
- Invasive species.
- Parcels of land that are not subject to site plan review.
- Tree trimming and removal necessary for government or public utility.
- Trees that have become a potential danger to human life or property.

“Require tree replacement and incentivize, but don't require, tree preservation”

- Ordinance HIGHLY incentivizes but does not require tree preservation
- Requires replacement

“Recognize that each site is unique”

- Planning Commission to review tree protection as part of site plan review

- Landmark and Woodland Tree protection and replacement prioritization:
 1. Protect and preserve existing onsite Landmark and Woodland Trees.
 2. Provide required replacement on the site of development.
 3. Pay into tree fund.

Does not apply to existing single family

- Tree replacement shall only apply to any property that requires site plan approval.
- Tree replacement shall NOT apply to single-family developments that do not require site plan approval.

TEST CASES

“Require tree replacement and incentivize, but don’t require, tree preservation”

- Replacement requirement:
 - Landmark trees: one-hundred (100%) of the original DBH removed.
 - Woodland trees: fifty percent (50%) of the original DBH removed
- 200% credit towards tree replacement for every woodland and landmark tree preserved.
 - I.E. For every inch you preserve, you are credited two inches towards replacement.



City of
Troy

350 W Big Beaver, Children's Hospital

City of Troy Planning Department



Test Case: DMC CHILDREN'S HOSPITAL

| | Number of Protected Trees | Total Inches | Mitigation Required |
|--------------------------------|---------------------------|--------------|---------------------|
| Woodland Trees to be Removed | 0 | 0 | 0 inches |
| Woodland Trees to be Preserved | 0 | 0 | 0 inches |
| Landmark Trees to be Removed | 8 | 191 | -191 inches |
| Landmark Trees to be Preserved | 8 | 86 | +172 inches |
| Total | | | 19 inches |

Based on 19 inches of replacement required, the applicant would be required to plant approximately six (6), three inch trees.



Test Case: Estates at Willowbrook Site Condominium

| | Protected Trees | Total Inches | Mitigation Required |
|--------------------------------|-----------------|--------------|-----------------------------------|
| Woodland Trees to be Removed | 137 | 1,038 | -519 inches (1,038 inches ÷ 2) |
| Woodland Trees to be Preserved | 15 | 108 | +216 inches (108 x 2) |
| Landmark Trees to be Removed | 0 | 0 | 0 inches |
| Landmark Trees to be Preserved | 0 | 0 | 0 inches |
| Total | | | 303 inches |

Based on 303 inches of replacement required, the applicant would be required to plant approximately one hundred one (101), three-inch trees



**WOODLAND
PROTECTION
ORDINANCE
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