

# Memorandum



DATE May 11, 2018

TO Honorable Mayor and Members of the City Council

SUBJECT **Amendments to Article X Landscape and Tree Preservation Regulations**

On Wednesday, May 16, 2018, you will be briefed on proposed amendments to Article X “Landscape and Tree Preservation Regulations” of the Development Code. The briefing material is attached for your review.

Please feel free to contact either myself or David Cossum if you have any questions or need additional information.



Majed A. Al-Ghafry  
Assistant City Manager

[Attachment]

c: T.C. Broadnax, City Manager  
Larry Casto, City Attorney  
Craig D. Kinton, City Auditor  
Billierae Johnson, City Secretary  
Daniel F. Solis, Administrative Judge  
Kimberly Bizar Tolbert, Chief of Staff to the City Manager  
Jo M. (Jody) Puckett, Assistant City Manager (Interim)

Jon Fortune, Assistant City Manager  
Joey Zapata, Assistant City Manager  
M. Elizabeth Reich, Chief Financial Officer  
Nadia Chandler Hardy, Chief of Community Services  
Raquel Favela, Chief of Economic Development & Neighborhood Services  
Theresa O'Donnell, Chief of Resilience  
Directors and Assistant Directors

# **Amendments to Article X Landscape and Tree Preservation Regulations**

**City Council Briefing  
May 16, 2018**

**David Cossum, Director  
Sustainable Development and  
Construction Department**



# Presentation Overview

- Background
- Key Amendments
- Next Steps



# Background

## Need for Landscape and Tree Conservation

- Mitigate affect of urban heat islands
- Air purification
- Oxygen regeneration
- Ground-water recharge
- Storm water runoff retardation and filtration
- Buffering and abatement of noise, glare and wind
- Aesthetics
- General benefits to quality of life

# Background

## Need for Amendments

- Viable and flexible solutions are necessary to address issues which have required a variance or exception from the Board of Adjustment
  - Time period needed to comply with landscaping and mitigation requirements
  - Utility conflicts
  - Alternative mitigation methods
- Need for additional alternatives to meet objectives of tree preservation/conservation while allowing for flexibility and desired development



# Background

## Need for Amendments

- Need to incentivize sustainable site development and enhance the public realm and streetscape
- Local studies have increased awareness of the role trees play relative to air quality, urban heat islands, storm water and quality of life issues

# Background

- Article X, the landscape and tree ordinance, was first established in 1994 by adding provisions on tree preservation, removal and replacement
- City Council established an Urban Forest Advisory Committee (UFAC) in 2005
- Discussions on possible amendments to Article X date back to 2009 and 2010
- Continued dialogue over the next 5 years

6

# Background

## Zoning Ordinance Advisory Committee

- In February 2015, the Zoning Ordinance Advisory Committee (ZOAC) first began deliberating possible amendments to Article X
- ZOAC had more than 40 meetings in two years focused on education, public input, discussion and evaluation of options and proposals
- February 16, 2017: ZOAC recommended the proposed amendments to City Plan Commission (CPC) along with the recommendation that a Neighborhood Forest Overlay (NFO) tool be created in the future

7

# Background

## City Plan Commission

- April 27, 2017: CPC received the first of eight briefings to review ZOAC recommendations
- December 14, 2017: CPC recommended approval of the ZOAC proposed amendments and recommendation to develop an NFO
- February 26, 2018: Quality of Life, Arts, and Culture Council Committee was briefed on the proposed amendment and moved the proposal as recommended by CPC to full Council for briefing with the addition that if a Planned Development is deviating from Article X, a  $\frac{3}{4}$  vote by Council is required.

8

# Structure of Article X

- General
  - Purpose and Definitions
  - Planting and irrigation requirements
  - Maintenance
- Landscaping
  - Applicability
  - Site, parking lot and street trees
  - Landscape design standards
- Tree Preservation
  - Applicability
  - Tree removal and methods of tree replacement
  - Protection during construction
  - Defenses to prosecution for tree removal

# Key Amendments

Amendments introduced to incentivize sustainable site development by providing:

- Greater landscape flexibility and adaptability
- Updated tree establishment (planting area and soil conditions) and preservation regulations
- Additional and reasonable means of tree replacement and mitigation
- Supplemental landscape and tree manual

# Key Amendments

## General

- Rename Article X: “Landscape and Tree Conservation Regulations”
- Authorizes development of Landscape and Tree Manual to support Article X
- Improved soil and planting area requirements and tree location requirements
- Flexibility in plant irrigation requirements

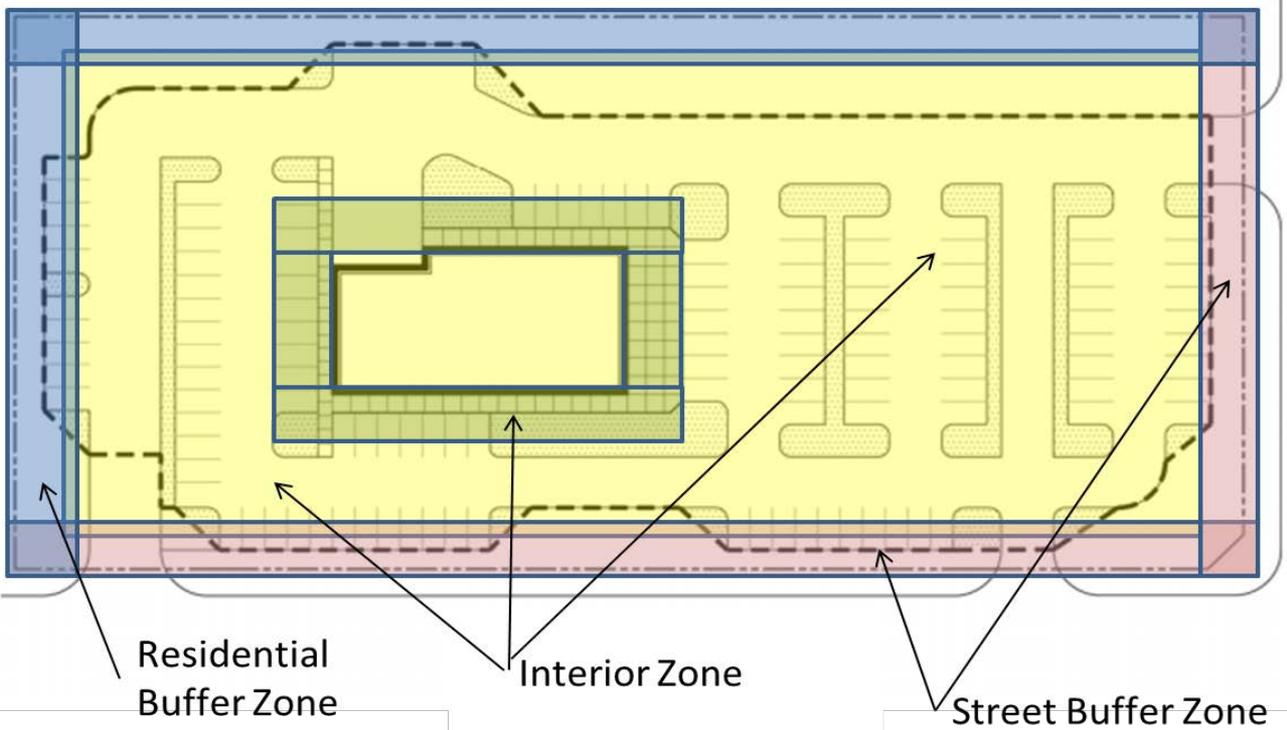
# Key Amendments

## Landscape

- Landscape requirements based on zones of the site
  - Street buffer zone
  - Residential buffer zone
  - Interior zone
- Planting requirements to provide tree canopy coverage in parking lots
- Design options created using a point system

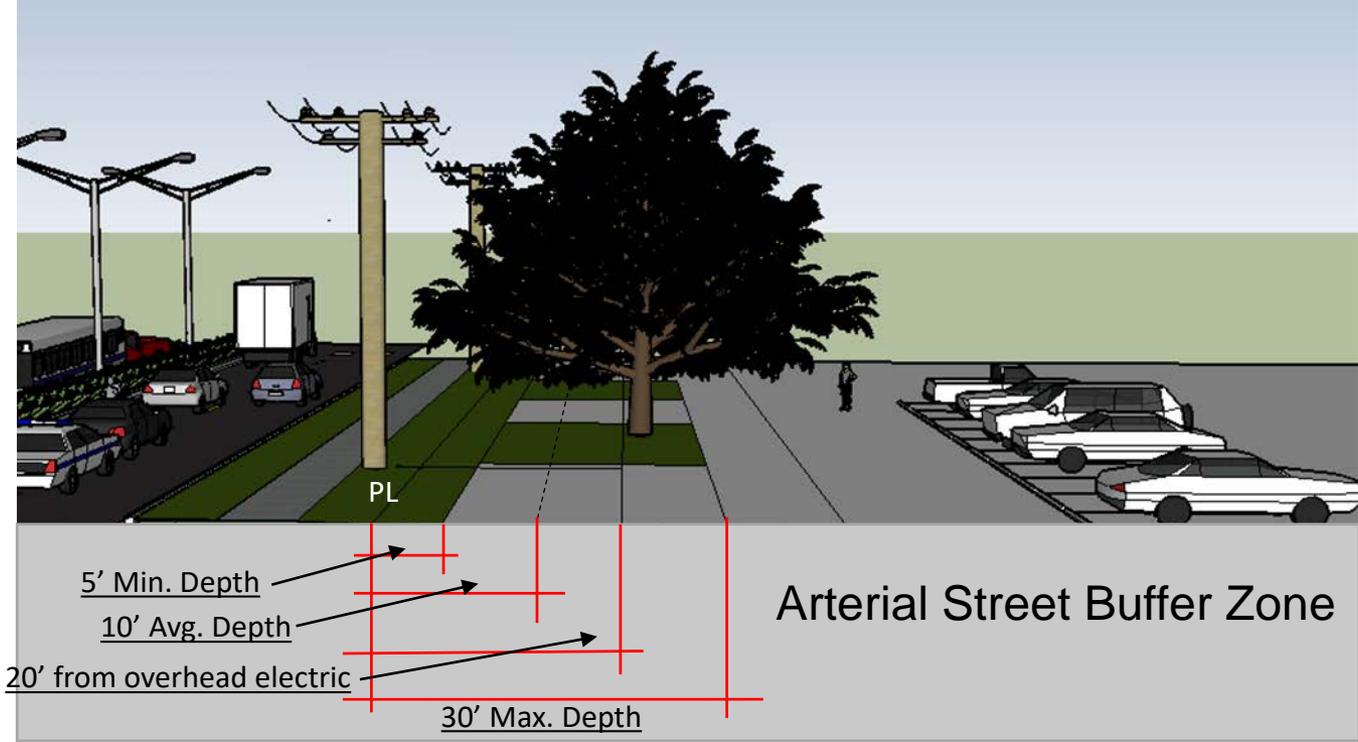
# Key Amendments

## Landscape Section – Zones



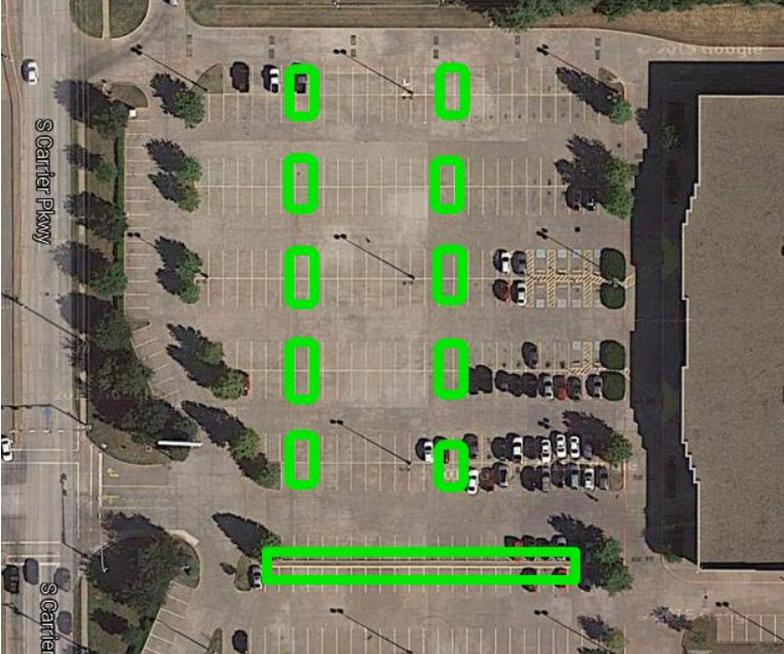
# Key Amendments

## Landscape – Zones



# Key Amendments

## Landscape – Zones



Example: Interior Zone surface parking requirements

# Key Amendments

## Tree Conservation – Approach

- Balance the desire for new development with the need to conserve and regenerate the urban forest
- Tree replacement and mitigation options based on incentives, reductions, and credits, taking into consideration future tree growth
- Flexibility in options for mitigation with greater potential for tree growth and retention of existing tree canopy
- Align with adopted plans and goals of the City

# Key Amendments

## Tree Conservation - General

- Rename section: Urban Forest Conservation
- Timing requirements increased for mitigation compliance to coincide with the completion of development
- Establishment of tree classification system
  - *Significant*: Rated for significant size or species that cannot be readily replaced (mitigation at 1.5:1)
  - *Class 1*: Rated for location in environmentally sensitive land area (mitigation at 1:1)
  - *Class 2*: Rated for the benefits provided in the urban environment (mitigation at 0.7:1)
  - *Class 3*: Rated for general condition and growth habits (mitigation at 0.4:1)

# Key Amendments

## Tree Conservation – Mitigation Tools (New)

- Development impact area waiver: Except for significant trees, mitigation may be waived for trees located in a development impact area when the project is designed in accordance with sustainable landscape design
- Transplanted tree credits: Up to 5” credit for each inch of a transplanted protected tree, dependent on size of tree
- Forest Stand Delineation (FSD): Can reduce or remove mitigation requirement on “old field sites”
- Legacy tree credits: Legacy tree planted will receive 12” of credit for as small as a 2” tree planted

# Key Amendments

## Tree Conservation – Mitigation Tools (New)

- Habitat preservation credit: 1,200 s/f of protected habitat area can receive a 12” tree credit
- Sustainable development incentives: Credit can be received depending on sustainable landscape design and canopy preservation
- Park land dedication: Credit received for each protected tree in park land dedication area
- Tree canopy cover: Credit for single family and duplex uses with a goal of 40% canopy cover
- Unrestricted zone exemption for single family and duplex properties exempts certain areas not in required setbacks

19

# Key Amendments

## Tree Conservation – Reforestation Fund

- Expanded use of Reforestation Fund to:
  - Purchase trees to plant on public property
  - Create an urban forest master plan and update periodically
  - Fund a staff position to manage and direct the fund for planting and urban forest education
  - Acquire conservation easements or wooded property

# Key Amendments

## Tree Conservation – Enforcement Tools

- Use of Forest Stand Delineation (FSD) to identify and enforce penalties against tree removal without permit or physical evidence of the removed trees by use of aerial imagery and other resources
- Demolition permit issuance will establish termination of single family use in determining when single family exemption is applicable

# Stakeholder Input on Final Proposal

- Concerns expressed to CPC include:
  - Use of Planned Development districts to modify Article X tree conservation provisions
  - Compliance with HB 7 passed in the last special legislative session
  - Inclusion of hackberry's and other less desirable trees on protected tree list even at a substantially reduced rate
- Generally supportive of the compromises reached on balancing the need for development with the need to address environmental concerns

22

# Recommendation

- Staff recommends approval of the City Plan Commission recommendations



# Next Steps

- Schedule for full City Council consideration
- Complete “Landscape and Tree Manual”
- Process proposal for “Neighborhood Forest Overlay”

# **Amendments to Article X Landscape and Tree Preservation Regulations**

**City Council Briefing  
May 16, 2018**

**David Cossum, Director  
Sustainable Development and  
Construction Department**



# Appendix

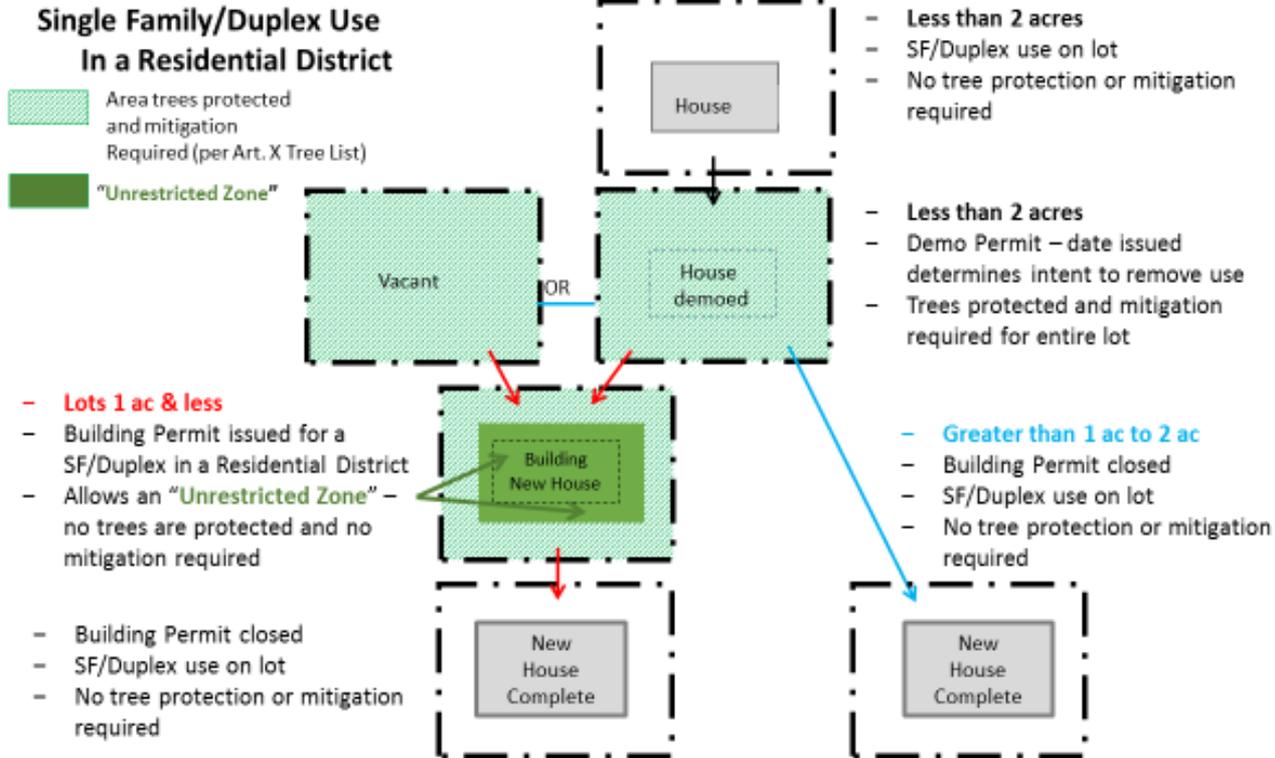
## Tree Conservation Section – Tree Classification

- **Historic Trees:** (mitigated at 3:1)
  - Only established by Council resolution designating a tree or grove of trees as historic
- **Significant Tree:** (mitigated at 1.5:1)
  - At 12" or greater; Post Oaks
  - At 24" or greater; American elm, bois d' arc, cedar elm, chittamwood, common persimmon, eastern red cedar, green ash, all other oaks, pecan, all walnut species, and white ash
- **Class 1 trees:** (mitigated at 1:1)
  - Trees located in primary natural area or geologically similar area
- **Class 2 trees** (mitigated at 0.7:1)
  - Protected trees that is not otherwise classified
- **Class 3 trees** (mitigated at 0.4:1)
  - Arizona ash, black willow, cottonwood, hackberry, honey locust, mesquite, mimosa, mulberry, ornamentals, pinus spp., Siberian elm, silver maple, sugarberry, or a small tree

26

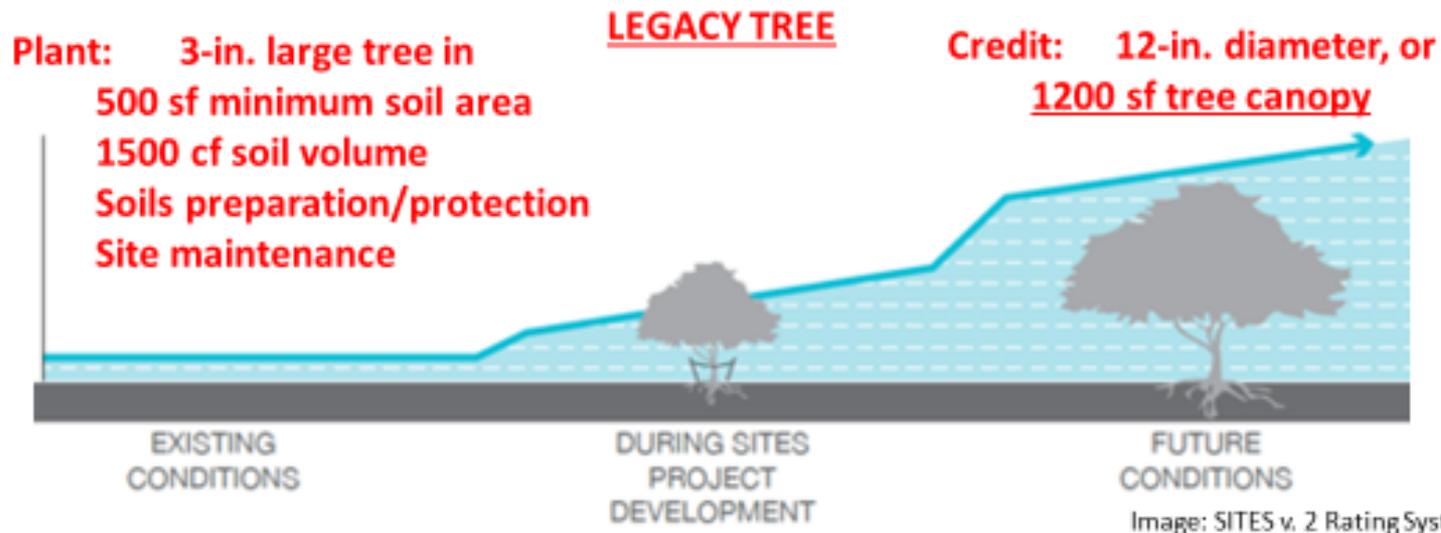
# Appendix

## Tree Conservation Section – Single Family / Duplex



# Appendix

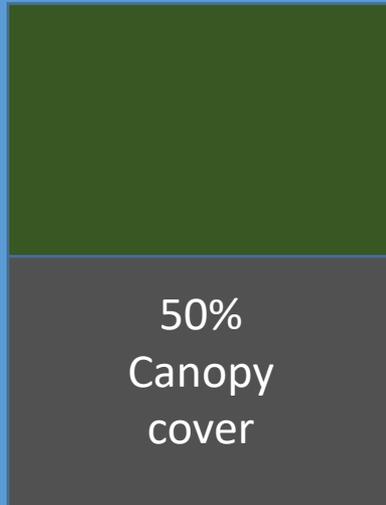
## Tree Conservation Section – Legacy Tree Credit



# Appendix

## Sustainable Development Incentive Process

Pre-Development

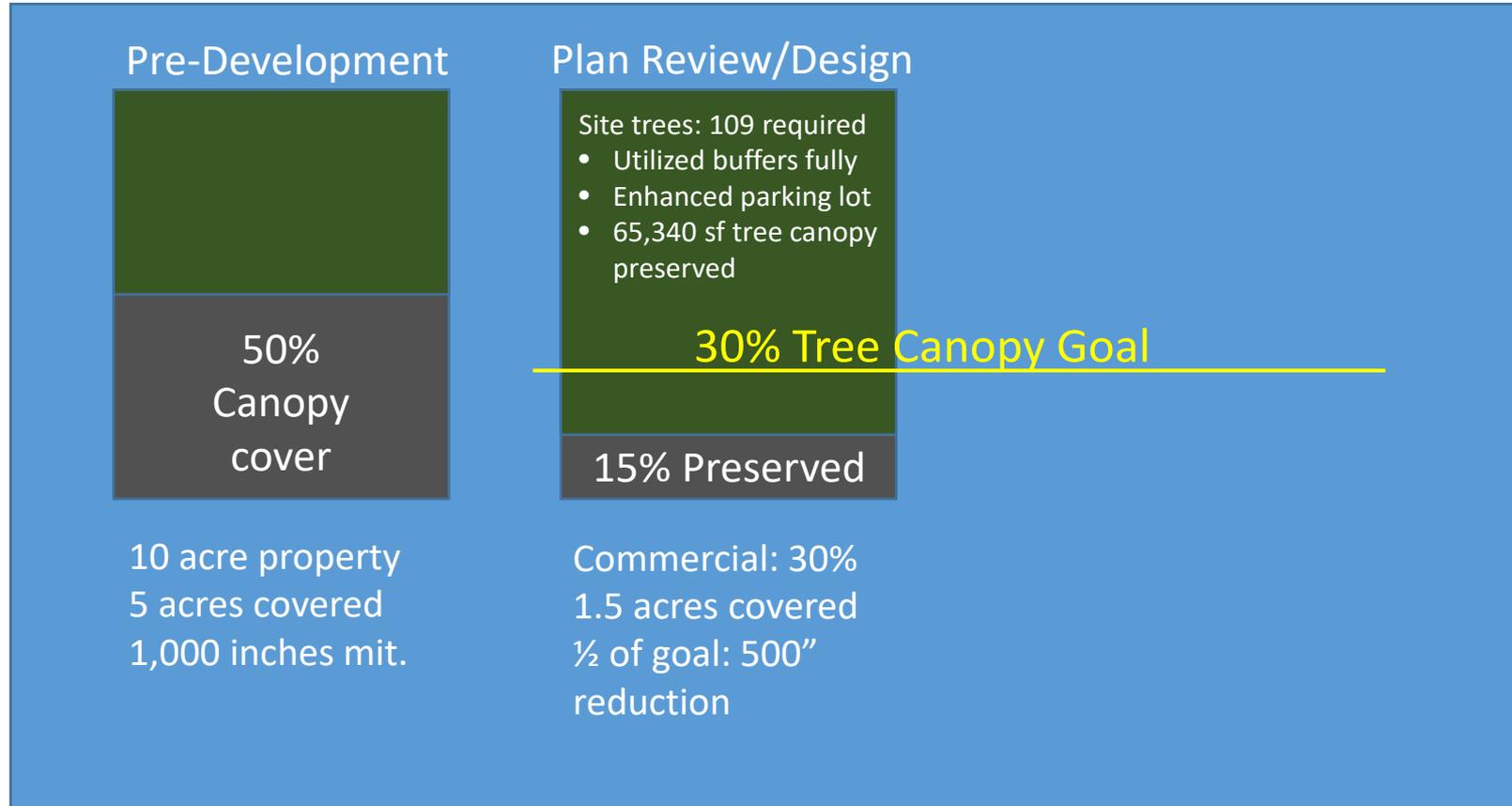


10 acre property  
5 acres covered  
1,000 inches mit.

29

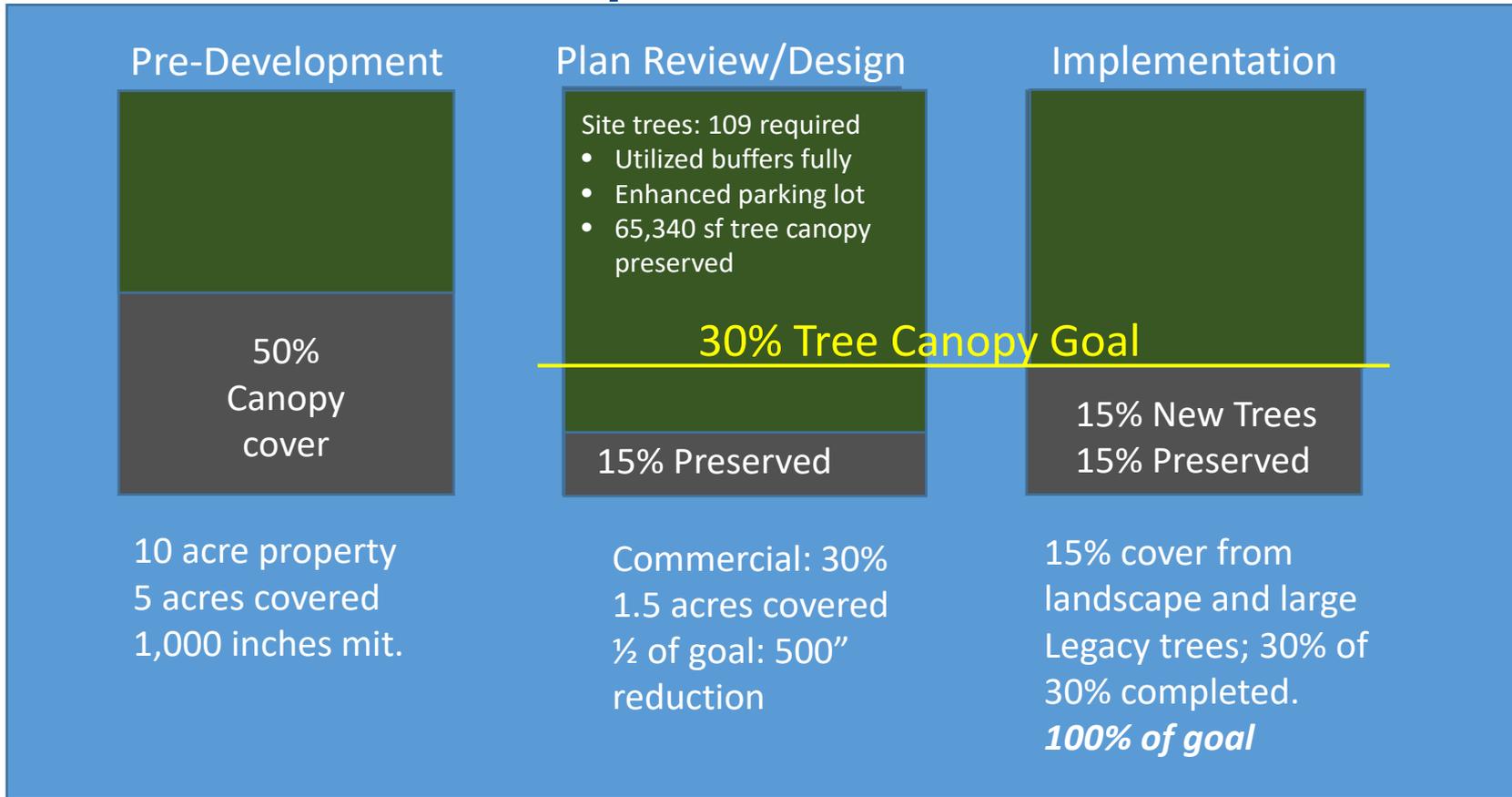
# Appendix

## Sustainable Development Incentive Process



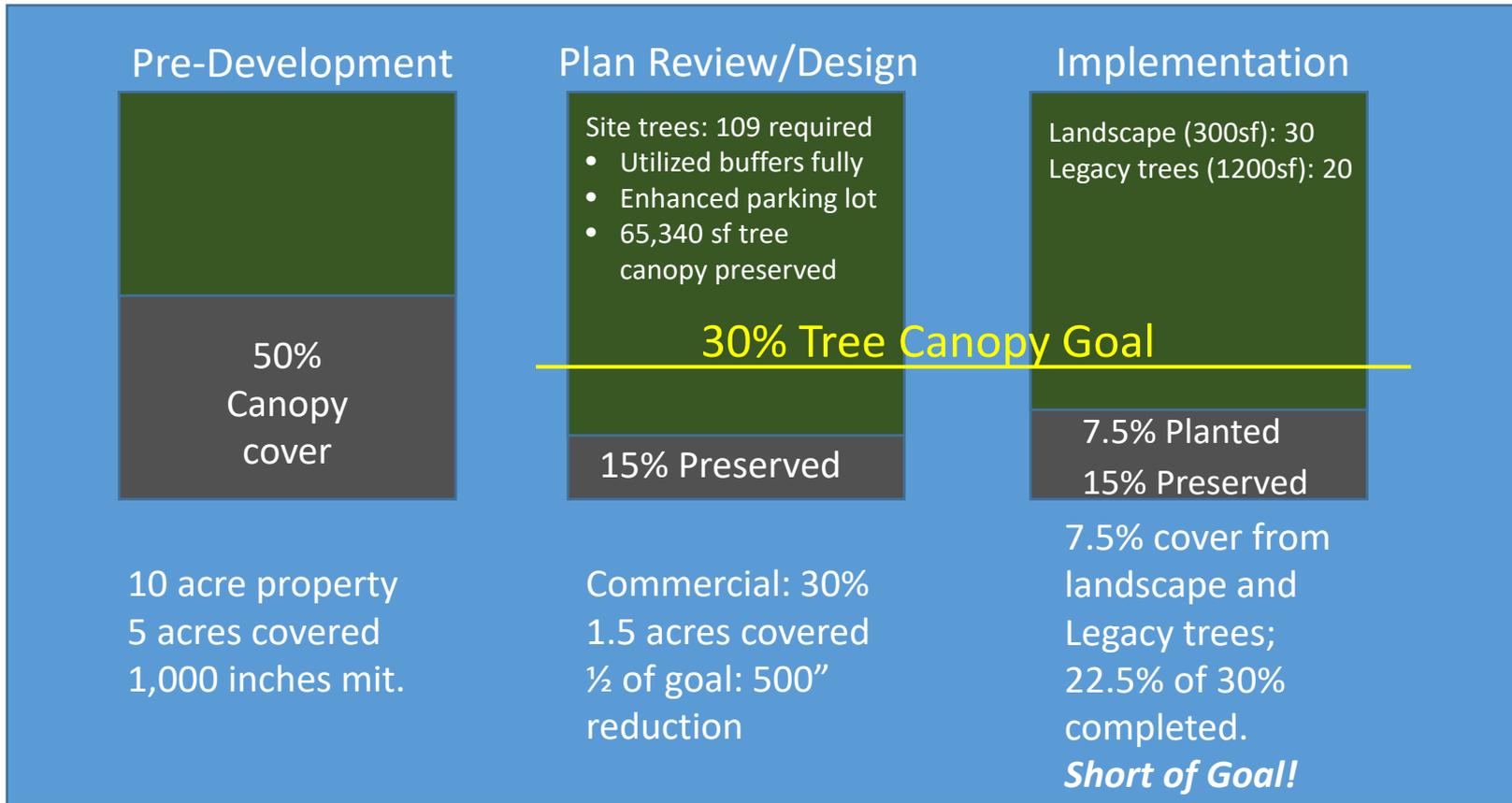
# Appendix

## Sustainable Development Incentive Process



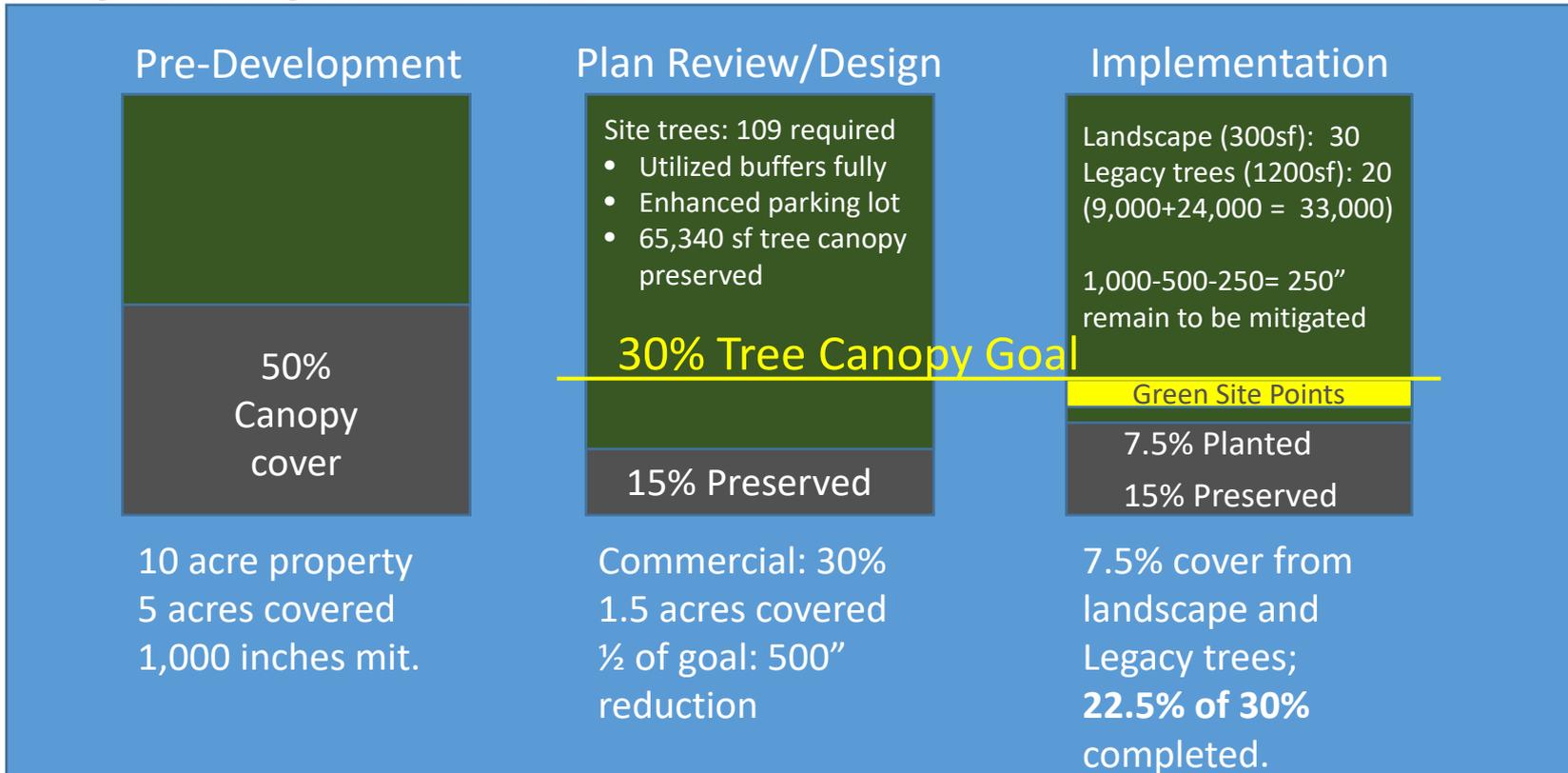
# Appendix

## Sustainable Development Incentive Process



# Appendix

## Sustainable Development Incentive Process with Green Site Points



# Appendix

## Sustainable Development Incentive Process with Green Site Points

### Pre-Development

Point total for lots over 3 acs is based on 50 points or a greater tree canopy cover prior to review.

50%  
Canopy  
cover

10 acre property  
5 acres covered  
1,000 inches mit.

SDI: Reduced requirements  
by 75% (**250" remain**)

34

# Appendix

## Sustainable Development Incentive Process with Green Site Points

### Pre-Development

Point total for lots over 3 acs is based on 50 points or a greater tree canopy cover prior to review.

50%  
Canopy  
cover

10 acre property  
5 acres covered  
1,000 inches mit.

SDI: Reduced  
requirements by  
75% (**250" remain**)

### Plan Review/Design

- Sustainable Landscape Plan – 5 pts.
- Tree Preservation Plan – 5 pts.
- #2 Enhanced buffer zone increase – 15 pts.
- #5 Parking lots – 20 pts.
- #7 Public deed restriction – 5 pts.
- 50 points attained.

# Appendix

## Sustainable Development Incentive Process with Green Site Points

Pre-Development	Plan Review/Design	Implementation
<p>Point total for lots over 3 acs is based on 50 points or a greater tree canopy cover prior to review.</p> <p>50% Canopy cover</p>	<ul style="list-style-type: none"> <li>Sustainable Landscape Plan – 5 pts.</li> <li>Tree Preservation Plan – 5 pts.</li> <li>#2 Enhanced buffer zone increase – 15 pts.</li> <li>#5 Parking lots – 20 pts.</li> <li>#7 Public deed restriction – 5 pts.</li> <li>50 points attained.</li> </ul>	<p>250” remain to be mitigated.</p> <p>-25”</p> <p>-25”</p> <p>-75”</p> <p>-100”</p> <p>-25”</p> <p>Total: 250”</p>
<p>10 acre property 5 acres covered 1,000 inches mit. SDI: Reduced requirements by 75% (250” remain)</p>		<p><b>Complete!!</b></p>

# Appendix

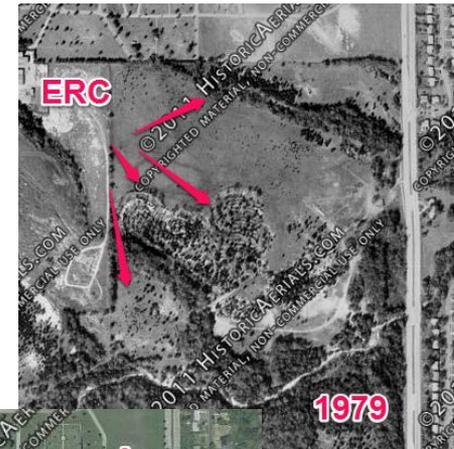
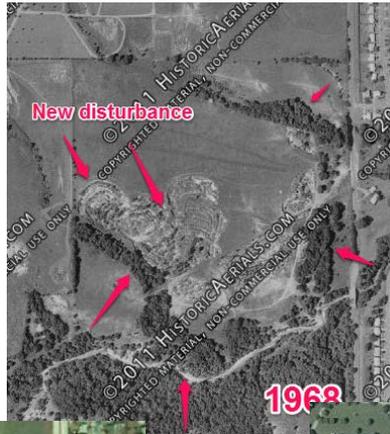
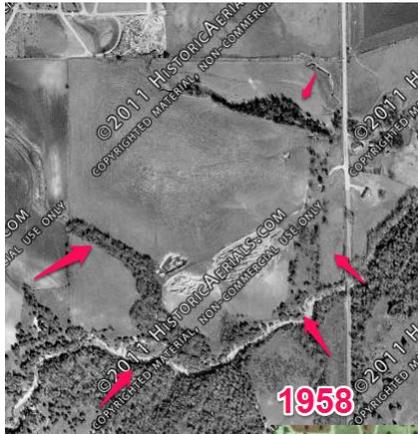
## Tree Conservation – Old Field Lots Forest Stand Delineation (FSD)



- The 2015 Google Earth view shows the existing conditions on the property.
- An FSD can distinguish predominant young juniper stands from older stands, or stands of other species.
- Field assessment is needed to establish the boundaries of the stratified forest survey.
- Historical ground and aerial imagery provides confirmation on the age and history of the tree stand.

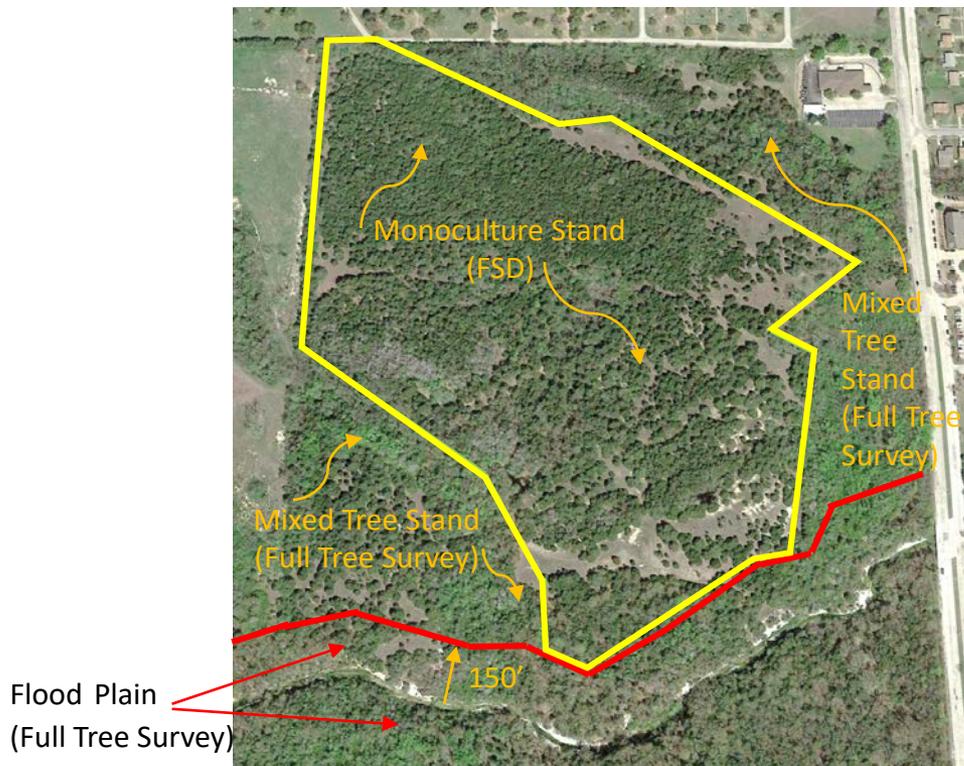
# Appendix

## Tree Conservation – Old Field Lots Forest Stand Delineation (FSD)



# Appendix

## Tree Conservation – Old Field Lots Forest Stand Delineation (FSD)



- Based on the historical aerials, the area outlined in yellow could be largely exempt from tree mitigation as an “old field”
- If any trees meeting the definition of a “significant tree” were in the area, they would require mitigation

# Appendix

## Interaction with Park Land Dedication Ordinance

- A developer may receive credit for all protected trees in dedicated park land as they would if the land were in a dedicated conservation easement for tree mitigation purposes
- A developer may receive park land dedication credit for land that is dedicated as a conservation easement