

# Memorandum



DATE February 23, 2018

TO Members of the Quality of Life, Arts & Culture Committee: Sandy Greyson (Chair), Mark Clayton (Vice Chair), Rickey D. Callahan, Jennifer S. Gates, Scott Griggs, B. Adam McGough, Omar Narvaez

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

On Monday, February 26, 2018, the Committee will be briefed on proposed amendments to Article X "Landscape and Tree Preservation Regulations" of the Development Code. The City Plan Commission recommended approval of the amendments on December 14, 2017. 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

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

Jon Fortune, Assistant City Manager  
Joey Zapala, 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**

**Quality of Life, Arts &  
Culture Committee**

**February 26, 2018**

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



# Overview

- Background
- Key Amendments
- Next Steps



# Background

## Need for Landscape and Tree Conservation

- Mitigate effects of urban heat islands
- Air purification
- Oxygen regeneration
- Groundwater recharge
- Stormwater runoff retardation and filtration
- Buffering and abatement of noise, glare and wind
- General benefits to quality of life

# Background

## Need for Amendments

- Viable and flexible solutions are necessary to address issues that 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 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, stormwater and quality of life issues

# Background

- Article X, the landscape and tree ordinance, was 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 2009-2010
- Continued dialogue for the next five years

# Background

## Zoning Ordinance Advisory Committee

- In February 2015, the Zoning Ordinance Advisory Committee (ZOAC) 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



# 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

# 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

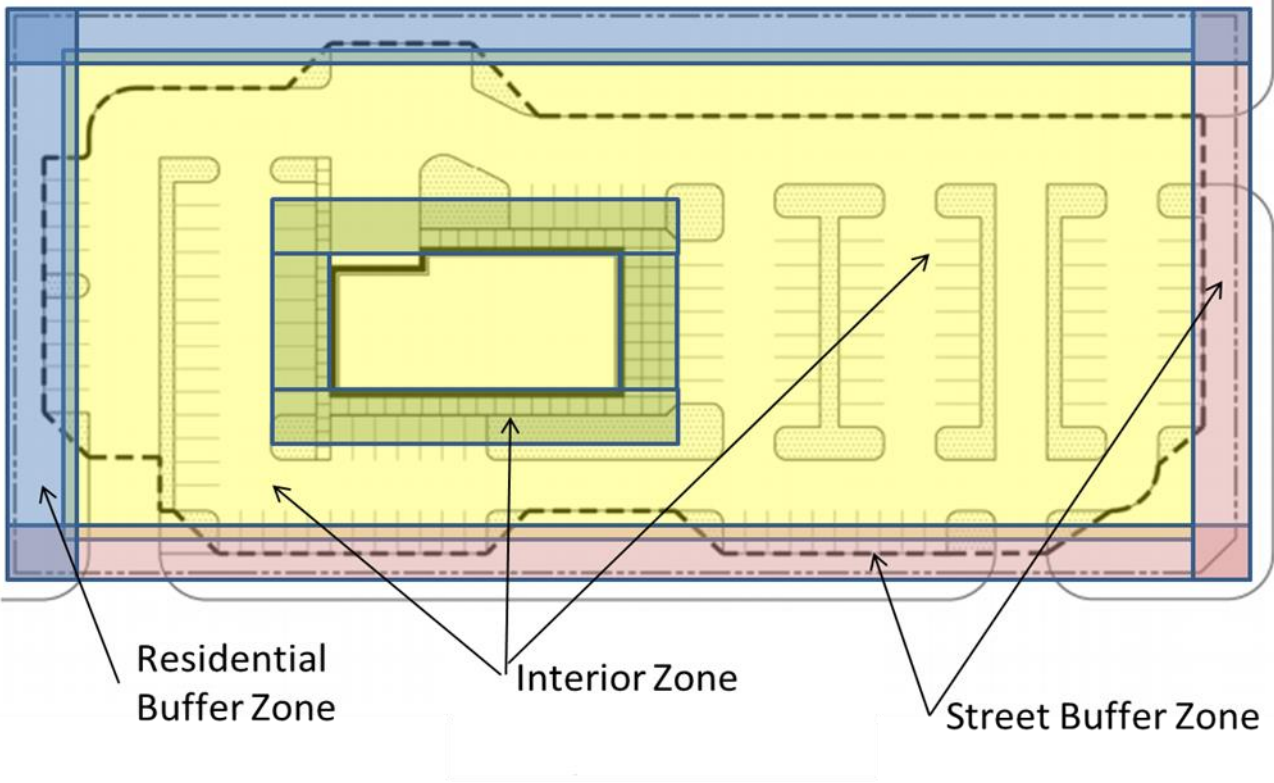
# Key Amendments

## Landscape

- Landscape requirements based on site zones:
  - 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

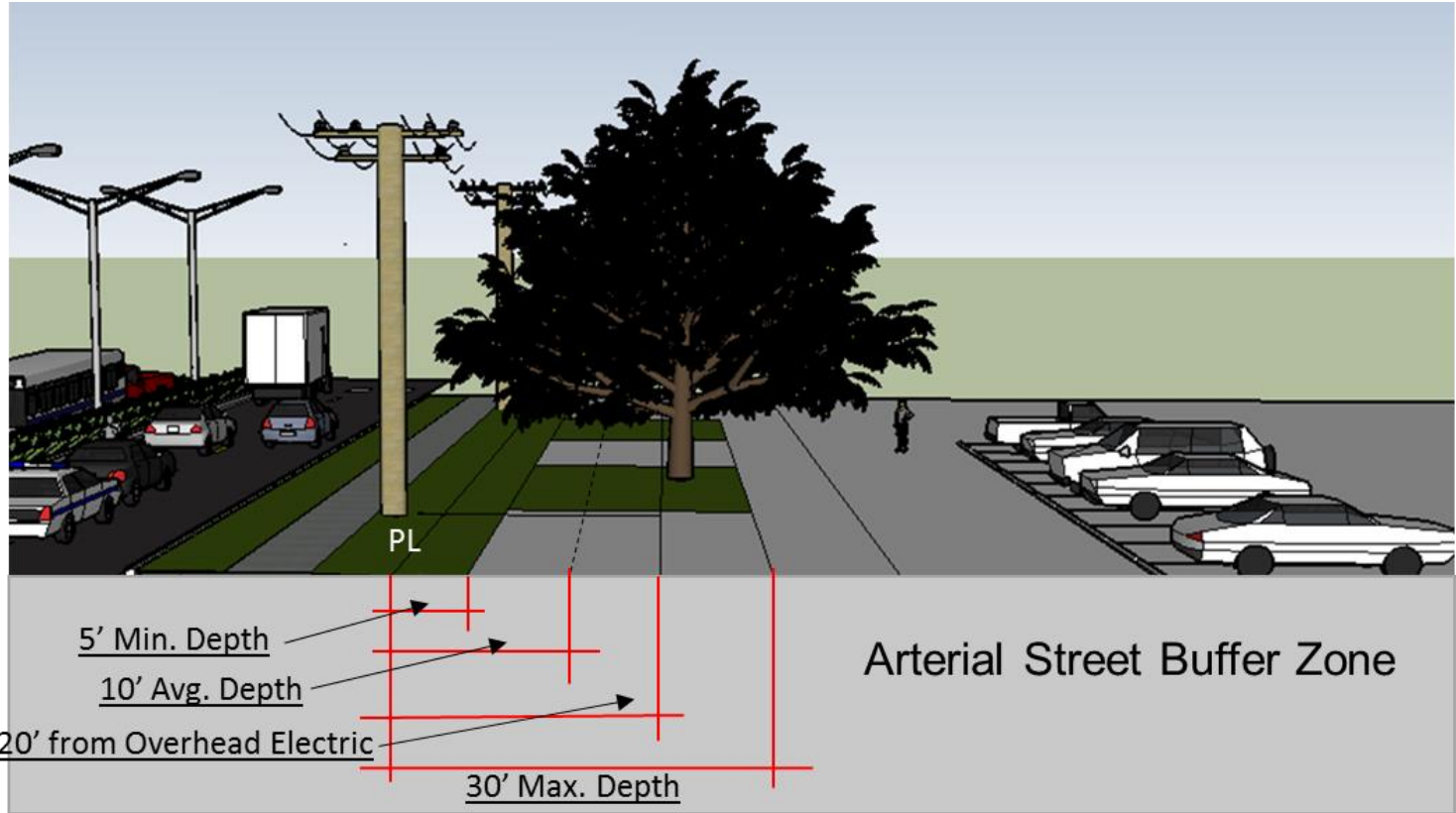
# Key Amendments

## Landscape – Zones



# Key Amendments

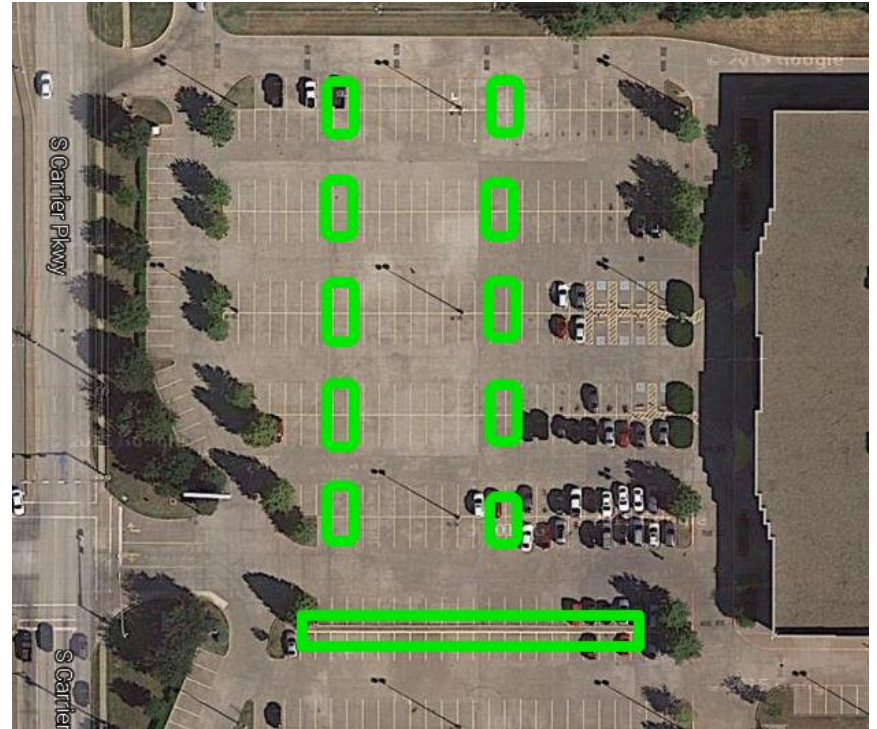
## Landscape – Zones





# Key Amendments

## Landscape – Zones



Example of Interior Zone surface parking requirements



# Key Amendments

## Tree Preservation – 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 Preservation – General

- Rename section: Urban Forest Conservation
- Timing requirements increased for mitigation compliance to coincide with 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 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 Preservation – 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 will receive 12” of credit for as small as a 2” tree planted

# Key Amendments

## Tree Preservation – 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 given 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 from mitigation certain areas not in required setbacks

# Key Amendments

## Tree Preservation – Enforcement Tools

- Use of FSD to identify and enforce penalties against tree removal without permit or physical evidence of 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

- Generally supportive of compromises reached to balance need for development with need to address environmental concerns
- 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

# Recommendations

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”



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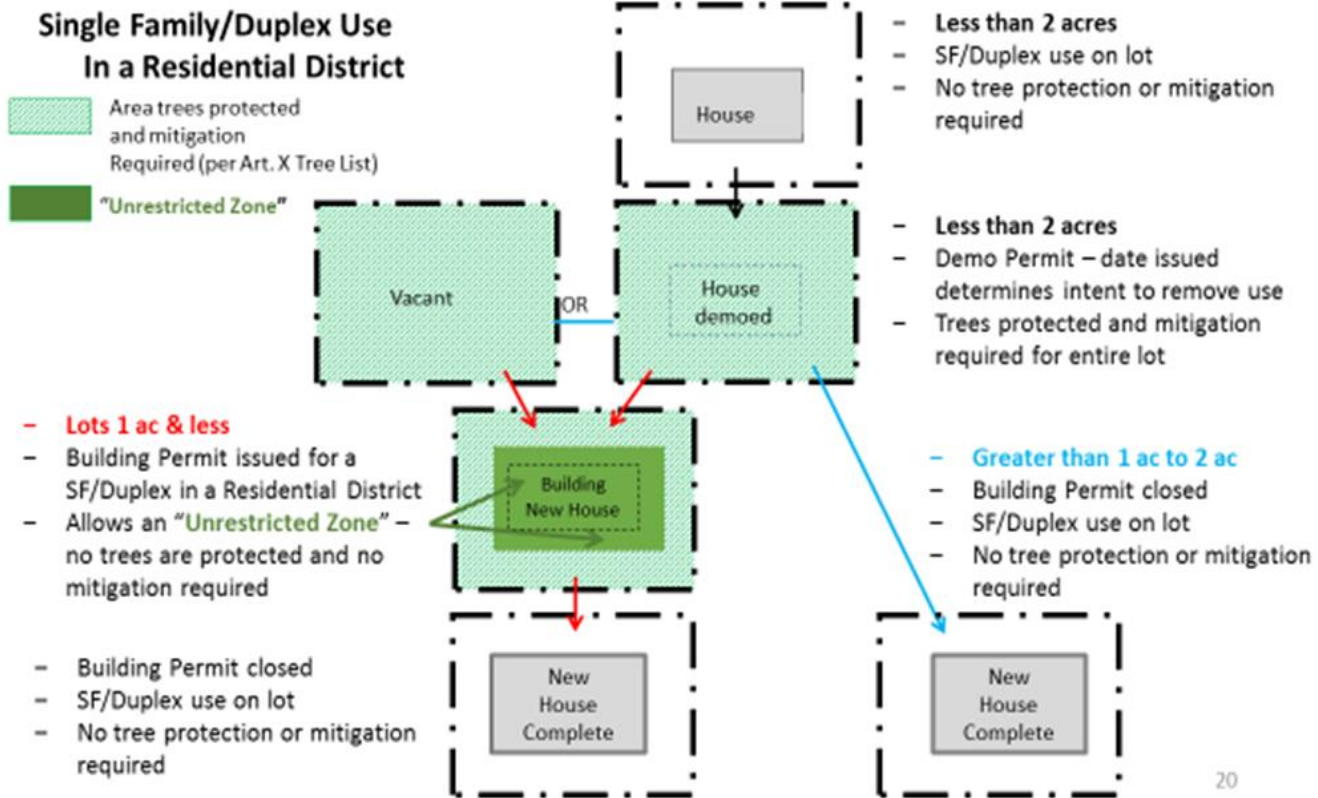
# Appendix



# Tree Preservation – Tree Classification

- Historic Trees (mitigated at 3:1)
  - 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 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

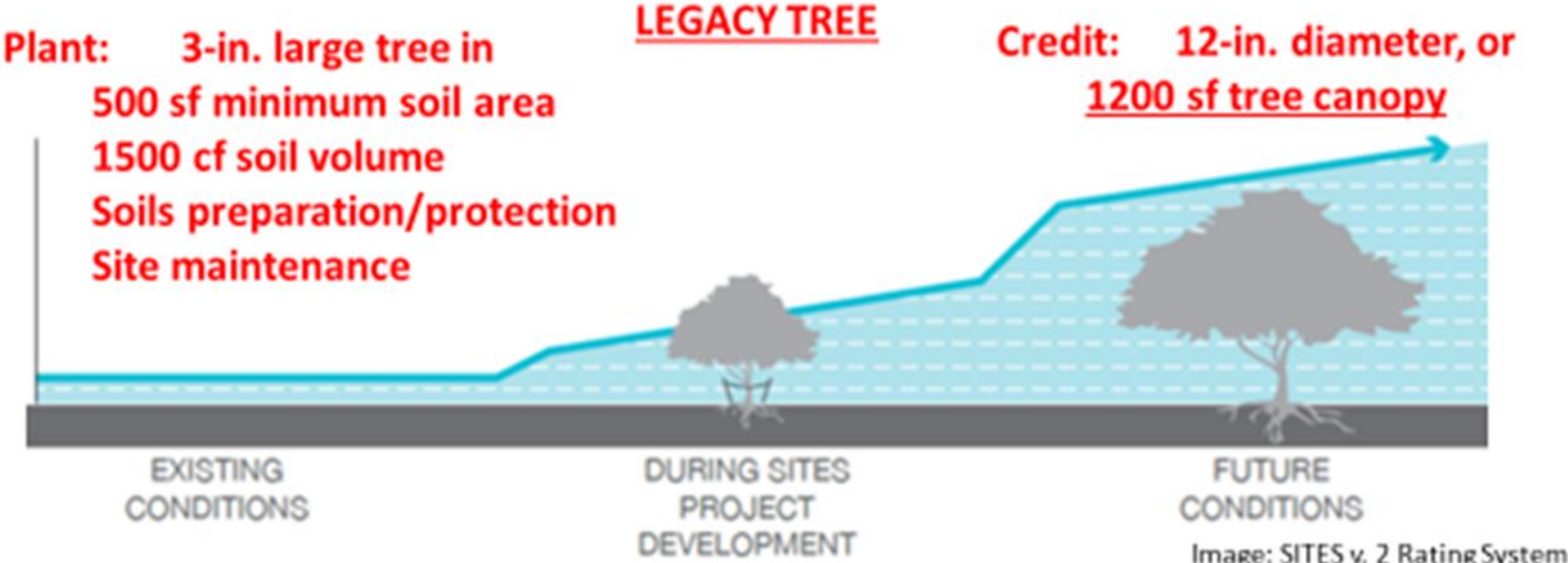
# Tree Preservation – Single Family/Duplex



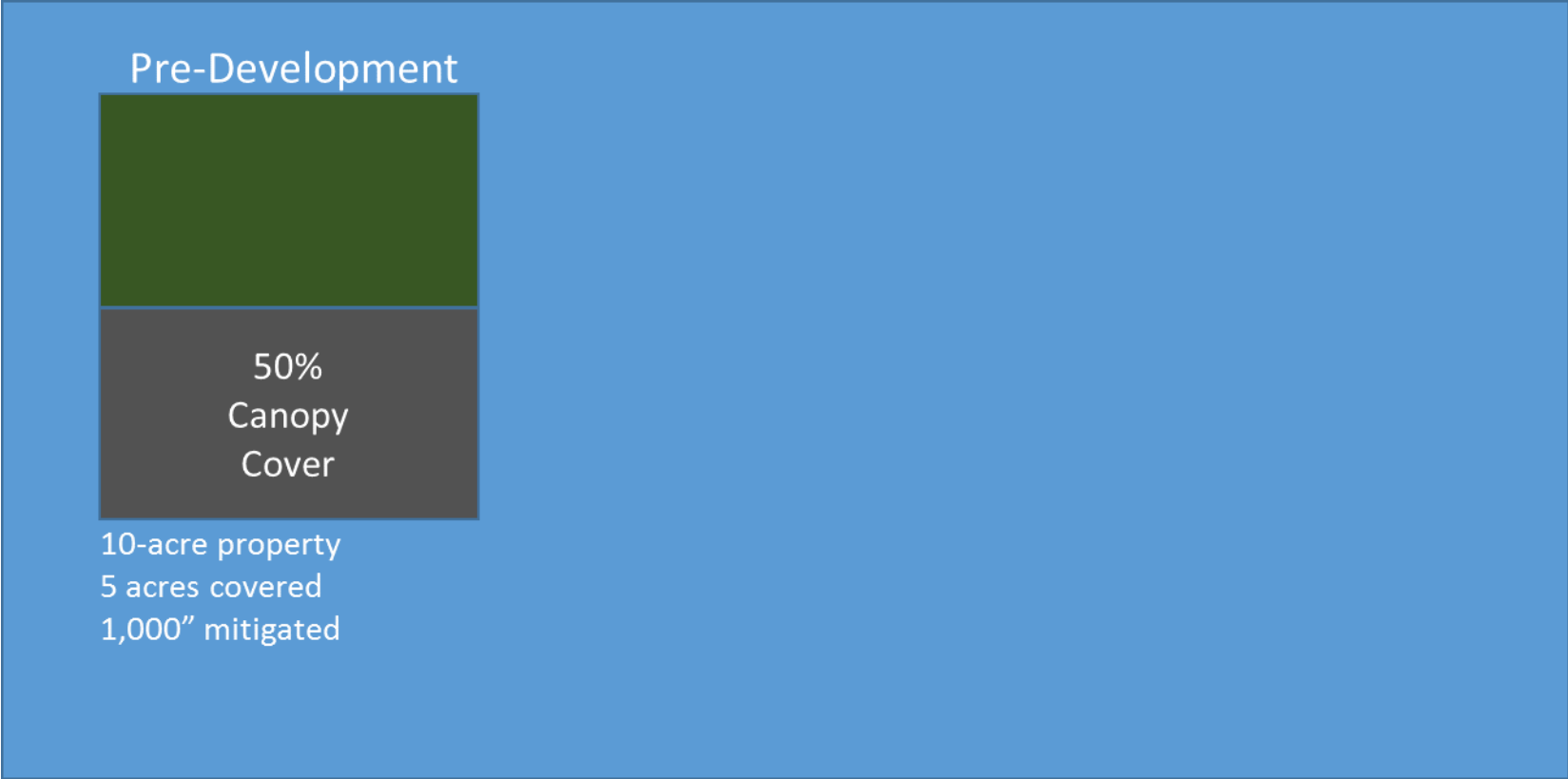
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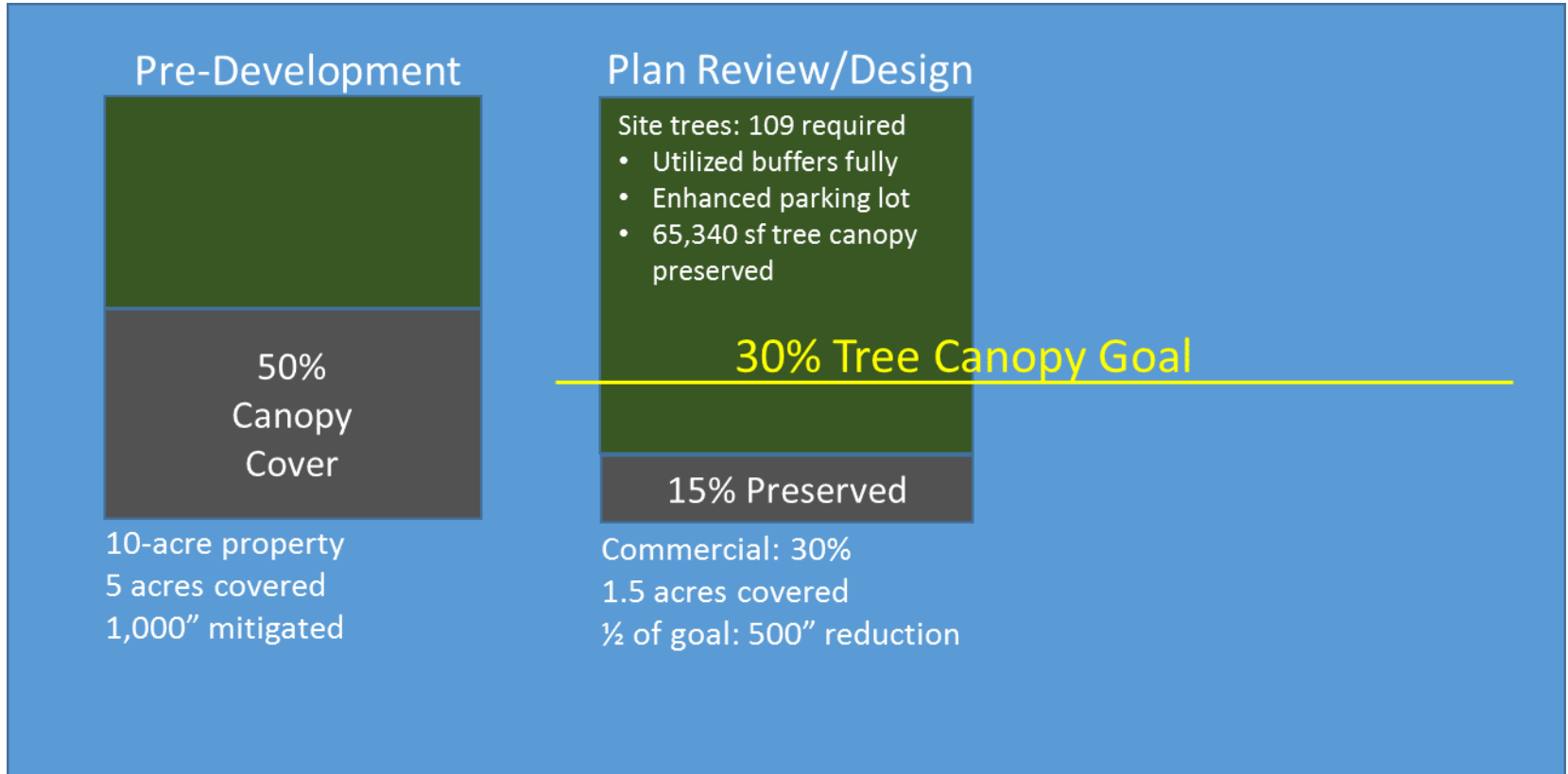
# Tree Preservation – Legacy Tree Credit



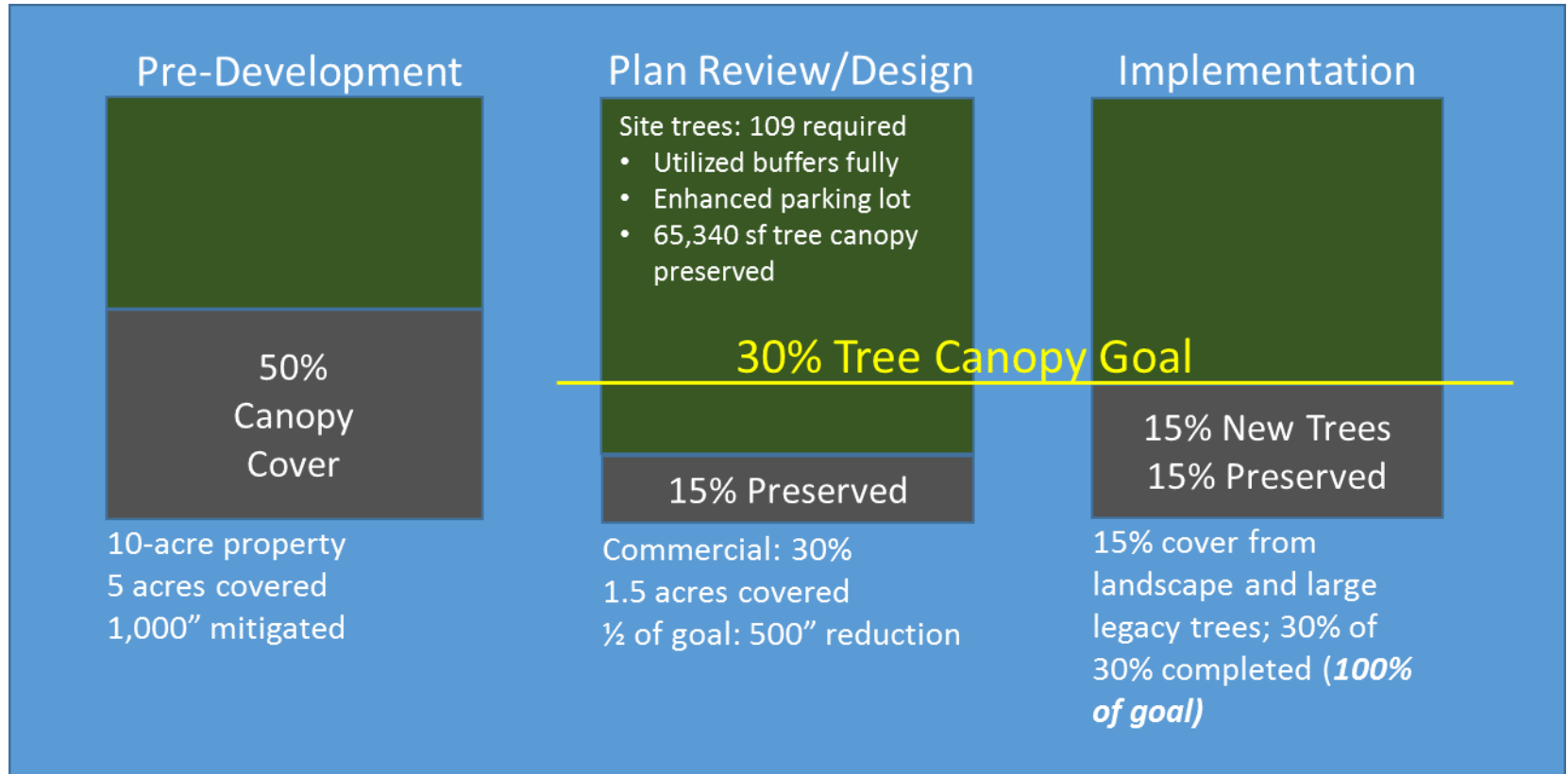
# Sustainable Development Incentive Process



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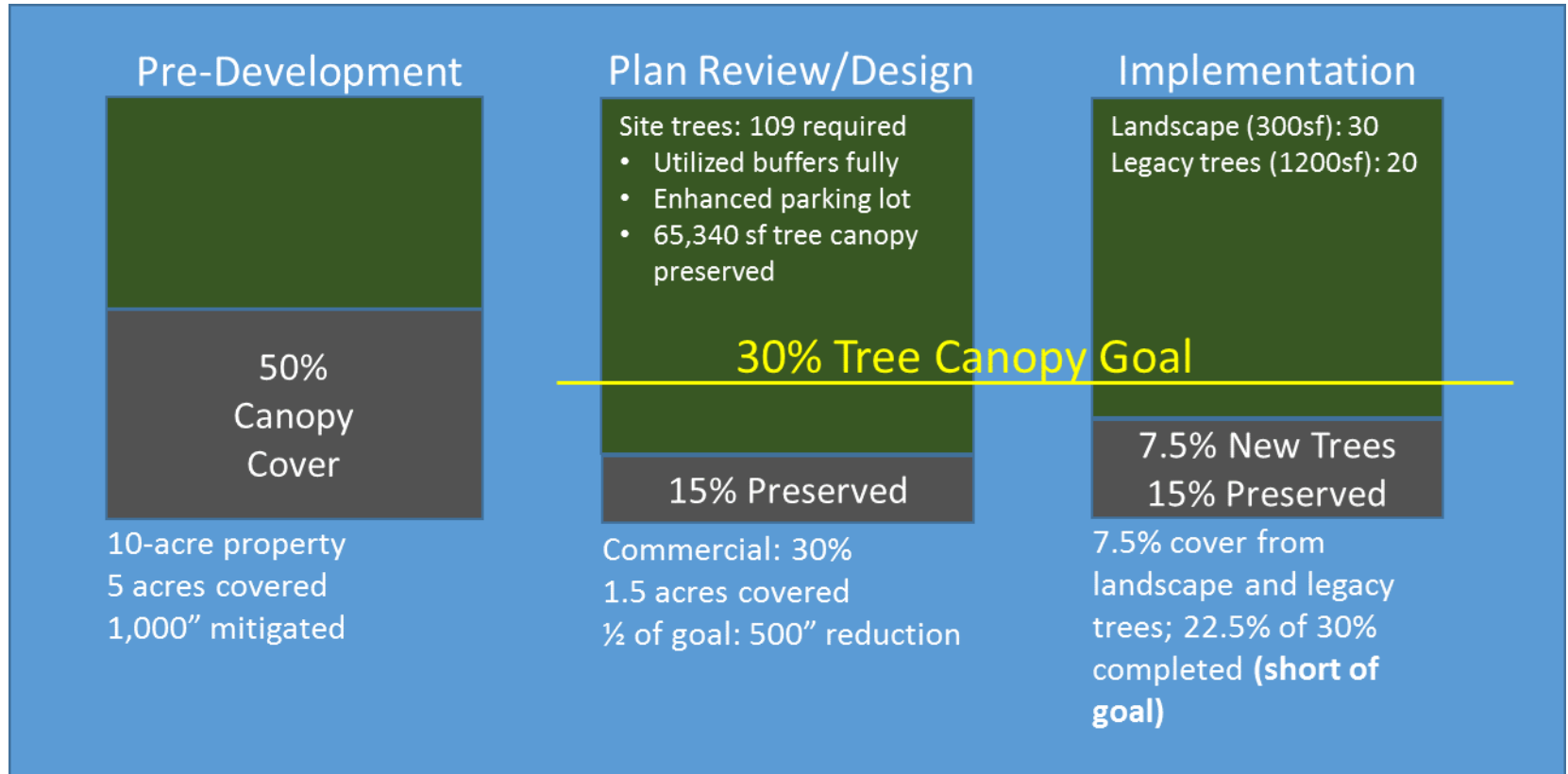


# Sustainable Development Incentive Process

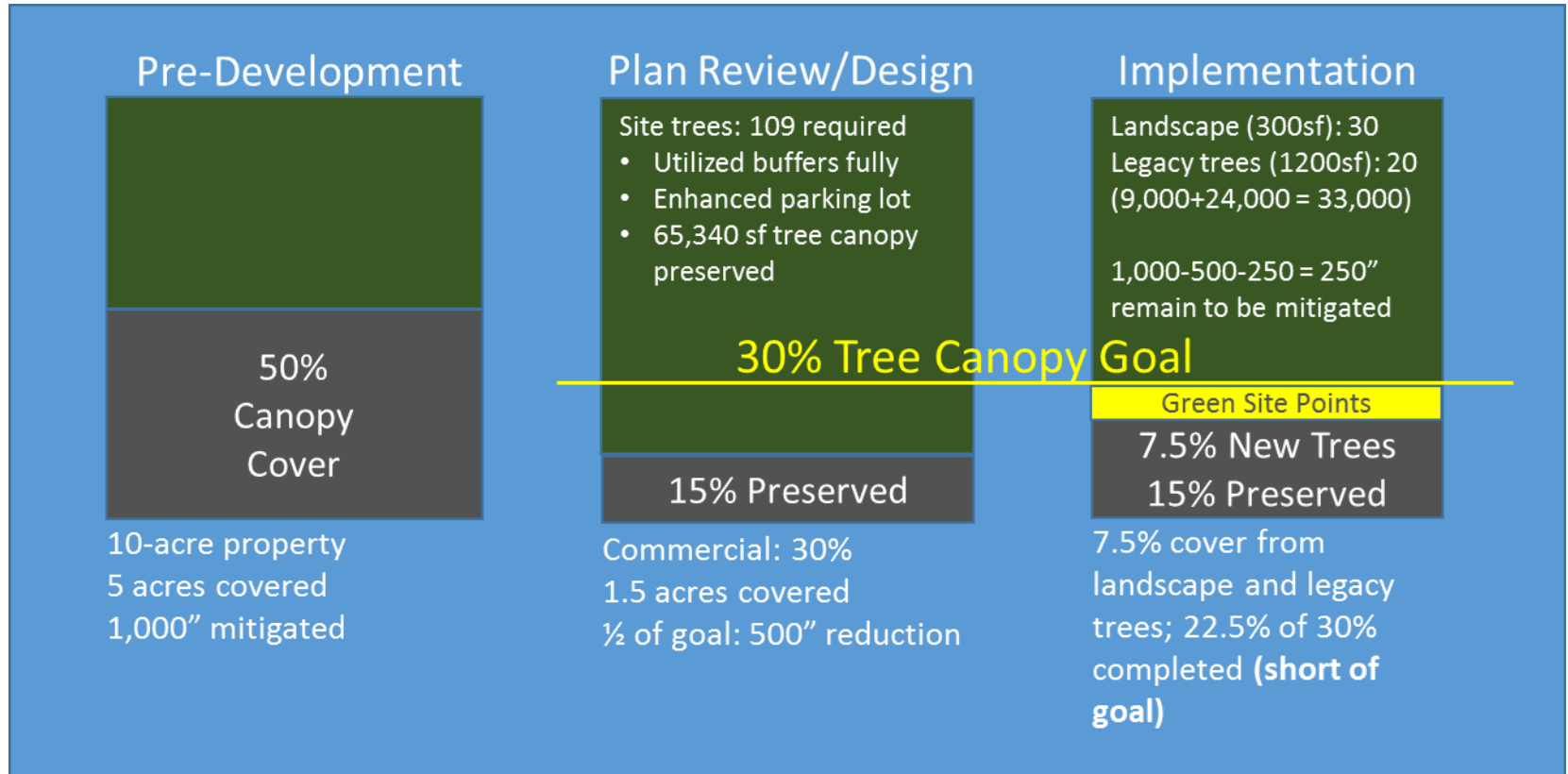




# Sustainable Development Incentive Process



# Sustainable Development Incentive Process with Green Site Points



# Sustainable Development Incentive Process with Green Site Points

## Pre-Development

Point total for lots larger than 3 acres is based on 50 points or a greater tree canopy cover prior to review. (5 pts. = 5")

50%  
Canopy  
Cover

10-acre property

5 acres covered

1,000" mitigated

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

# Sustainable Development Incentive Process with Green Site Points

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10-acre property  
5 acres covered  
1,000" mitigated

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

## Implementation

250" remain to be mitigated

- 5 pts. = 25"
- 5 pts. = 25"
- 15 pts. = 75"
- 20 pts. = 100"
- 5 pts. = 25"

Total: 250" (100% of goal)

# Tree Preservation – Old Field Lots

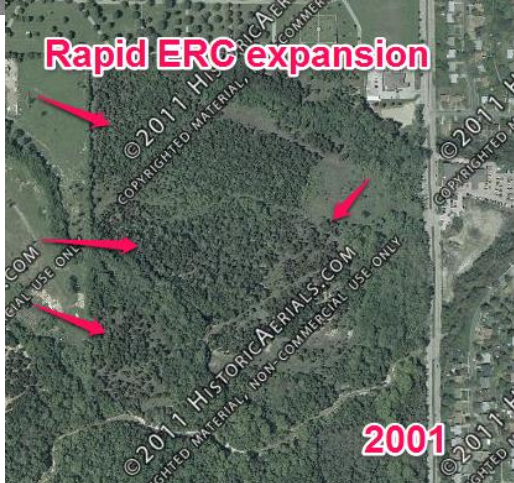
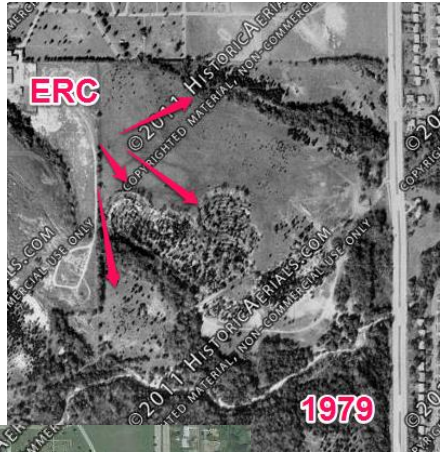
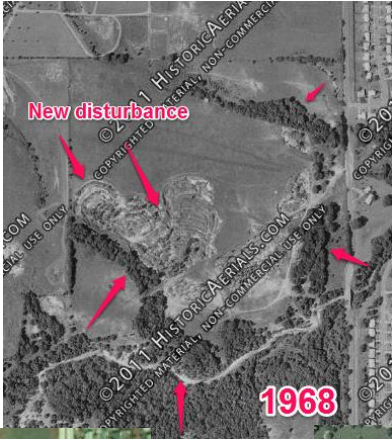
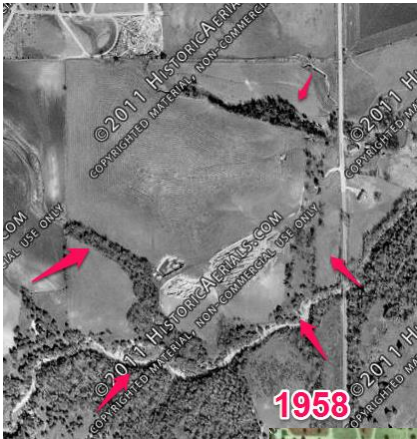
## Forest Stand Delineation

- 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





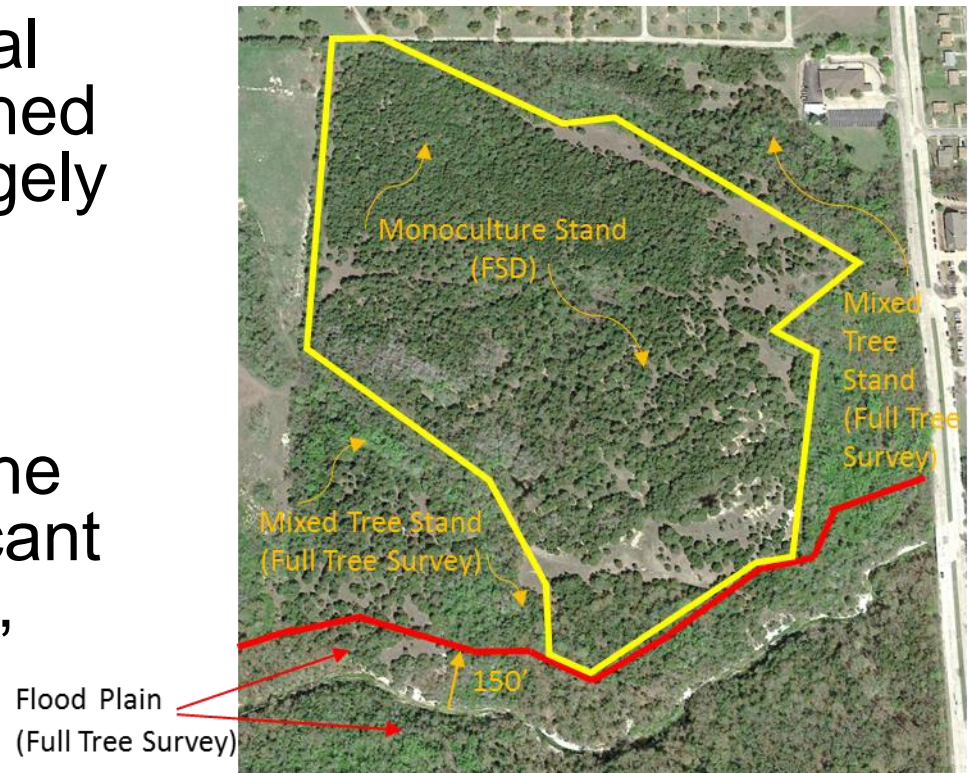
# Tree Preservation – Old Field Lots Forest Stand Delineation



# Tree Preservation – Old Field Lots

## Forest Stand Delineation

- 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



# 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