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# **Tree Planting Ordinance**

## **Unified Development Code (UDC)**

### **Text Amendment**

City Council  
September 21, 2021

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# Facts about Corpus Christi

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- Western Gulf Coastal Plain
- Relatively Flat topography
- 26"- 37" Annual Precipitation
- 71% Clay soil
- 7<sup>th</sup> Windiest City

# Why now?

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- Promoted by the Comprehensive Plan
- Encourage tree protection
- Positive contributions to environment = positive contributions to people.

# Positive Contributions

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- Storm Water Management (Low Impact Development),
    - Street Infrastructure
      - Reduced impervious surface leads to reduced runoff which leads to longer street lifespan.
    - Quality of Runoff
      - Nitrates, Phosphorous, petroleum runoff, and heavy metals
  - Energy (Heat Island Effect)
    - 10°- 20° F reduction of ground temperature
  - Air Quality
    - Odors, Temperature, Velocity, and Noise Reduction.
  - Pedestrian Safety
    - Physical and mental health
    - Complete Streets and Neighborhood Aesthetics
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# Tree Survey

Population	City	Tree Planting Requirements
2,320,268	HOUSTON	A. Lot 5,000 SF or less: (1) tree. New or Preserved. (1) in the right-of-way. B. Lot 5,000 SF or greater: (2) Trees New or preserved. (2) in the right-of-way.
1,547,253	SAN ANTONIO	38% Tree Canopy Cover Requirement per lot.
1,343,573	DALLAS	A. 7,500 SF or More: (3) Min. large or medium nursery stock trees in the front yard. B. Between 4,000 and 7,499 SF: Min. (2) large or medium nursery stock trees in the front yard. C. 4,000 SF or less: Min. (1) large or medium nursery stock tree per lot.
978,908	AUSTIN	A. At least (2) trees of at least two different species if the lot is in a single family residence small lot (SF4A-3600 SF) B. At least (3) trees of at least two different species if the lot in zonings other than SF4A.
741,206	FORT WORTH	Minimum retained or planted canopy coverage: 40%. Reduced to 25% if: a. One tree per lot is planted on all lots up to 5,000 square feet in area b. One additional tree for each additional 5,000 square feet of lot area, or fraction thereof is planted, up to a maximum of nine trees per residential lot C. The remaining portion of the 25% canopy coverage may be provided in public rights-of-way, parks, homeowner's association lots or boundary street parkways.
649,121	EL PASO	Every lot over twenty feet wide shall have at least one street tree. The spacing for all street trees shall be at thirty feet or less for all streets.
365,438	ARLINGTON	Front Yard landscaping: 15% vegetative cover, or at least 10 shrubs or one tree (at least 25% of vegetative cover). (A) Single-family detached Streetscape: (1) Lots with 60 linear feet or less of street frontage: (1) tree per lot, evenly spaced. (2) Lots with greater than 60 linear feet of street frontage: (2) trees per lot, evenly spaced. (iii) For the length of frontage on the side street of corner lots: (1) street tree per 35 linear feet, evenly spaced (B) Single-family attached Streetscape: One tree per lot, evenly spaced.
259,841	PLANO	One shade tree (3-inch caliper minimum) or an approved ornamental tree per lot.
259,151	LAREDO	A. 5,000 SQF or Less: (1) three inch caliper tree planted in front B. 5,000 SQF or more: (1) three inch caliper tree planted in front, (1) located per owner/developer preference.
253,851	LUBBOCK	Either one canopy tree or two ornamental tree per street frontage.



# Existing Development



District 1



District 5



District 4



District 3

# New Development





# New Development





# Street Yard Planting Requirements

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## Zoning Districts:

- RS-4.5, RS-6, and RS-TH – 2 Canopy or 1 Canopy and 1 Understory Tree
- RS-10, RS-15, and RS-TF – 2 Canopy Trees
- RS-22 – 3 Canopy Trees
- RE – 4 Canopy Trees
- FR – 5 Canopy Trees
- Extra Territorial Jurisdiction (ETJ):
  - 0.50 to 1 acre – 3 Canopy Trees
  - 1 acre and greater – 4 Canopy Trees

## Size:

- 1.5-inch caliper
  - If predominantly Sandy Loma soils option for a palm tree at a minimum of 5-foot trunk height
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# Implementation Plan

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## Incremental Implementation:

- October 2021
  - 1 Canopy Tree or 1 Understory Tree
  - 1-inch caliper in size
- October 2022
  - 2 Canopy Trees or 1 Canopy Tree 1 Understory Tree
    - Outside setbacks and easements
  - 1.5-inch caliper size

# Tree Types

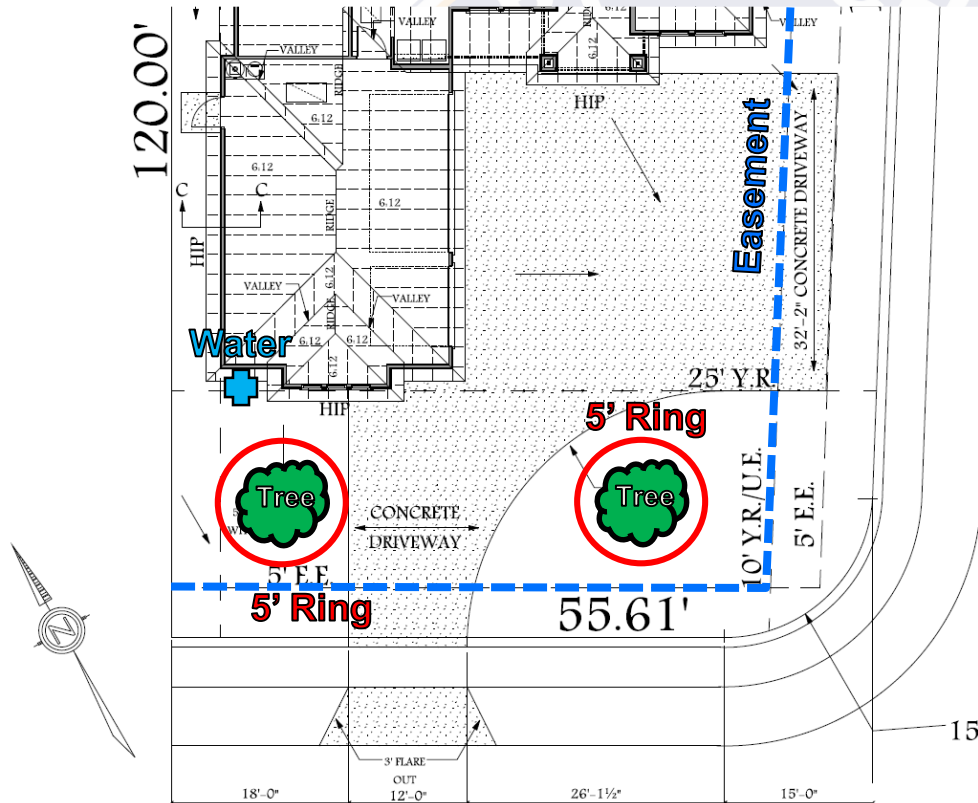
CANOPY TREES	
<u>Scientific Name</u>	<u>Common Name</u>
*Carya illinoensis	Pecan
Casuarina cunninghamiana	Australian Pine (Island Only)
Chilopsis linearis	Desert Willow
*Ehretia anacua	Anaqua
Fraxinus berlandieriana	Mexican Ash
Fraxinus velutina	Arizona Ash
*Pinus eldarica	Afgan Pine (sandy soils only)
*Pinus elliotti	Slash Pine (sandy soils only)
Pinus halepensis	Alleppo Pine (sandy soils only)
Pithecellobium flexicaule	Texas Ebony
*Prosopis glandulosa	Mesquite
*Quercus macrocarpa	Bur Oak
*Quercus virginiana	Live Oak (nursery grown)
*Sapindus drummondii	Western Soapberry
Taxodium distichum montezuma	Montezuma Bald Cypress
*Ulmus crassifolia	Cedar Elm
*Indicates protected tree as per UDC Section 7.3.5.	



# Tree Types

UNDERSTORY TREES	
Scientific Name	Common Name
<i>Acacia farnesiana</i>	Huisache, Sweet Acacia
<i>Cordia boissiere</i>	Wild Olive
<i>Ilex decidua</i>	Possumhaw Holly
<i>Ilex vomitoria</i>	Yaupon Holly Tree
<i>Lagerstroemia indica</i>	Crapemyrtle
<i>Laurus nobilis</i>	Bay Laurel (in sandy soils only)
<i>Parkinsonia aculeata</i>	Retama, Jerusalem Thorn
<i>Persea borbonia</i>	Native Sweetbay (in sandy soils only)
<i>Pinus thunbergiana</i>	Japanese Black Pine (sandy soils only)
<i>Pyrus kawkamii</i>	Ornamental Evergreen Pear
<i>Sophora secundiflora</i>	Texas Mountain Laurel
<i>Vitex agnus-castus</i>	Lavender Tree

# Site Plan



## Single-Family Home

- Zoning:
  - RS-4.5
- Trees:
  - 2 Canopy or 1 Canopy and 1 Understory Tree
  - 1.5" Caliper
- Location:
  - 5' Ring
  - Outside of Easements
  - Water Source

# Existing Development

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## **UDC Section 7.3.3.B**

1. Construction, or alteration within the street yard results in either of the following:
  - a. Any increase in ground level area by 1,000 square feet or more of existing structures up to 10,000 square feet, or any increase in the floor area by 10% or more of existing structures greater than 10,000 square feet. However, destruction of more than 50% of an existing nonconforming structure as defined by Section 9.4, [whose reconstruction does not qualify for an exception under §9.2.1.E of this UDC](#), shall comply with all landscape requirements and be treated as new development. If destruction is less than 50%, compliance shall not be required unless the ground level floor area is increased beyond the 1,000 square feet or 10% area set forth; or
    - a. Any buildings subsequently added within the street yard.
    - b. [Any demolitions and subsequent one- or two-family redevelopment of a residential property that is exempted under §9.2.1.E and/or § 9.5.2 of this Section may be subject to abbreviated landscaping requirements.](#)



# Maintenance and Enforcement

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## Single-Family Homes

- Site Plan Review
- Inspections
  - Issuance of Certificate of Occupancy
- Enforcement:
  - Existing Trees
  - New language for installation

# Planning Commission and Staff Recommendation

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**Approval** of the proposed  
UDC Text Amendments



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# Questions?

[Development Services | City of Corpus Christi \(cctexas.com\)](https://www.surveymonkey.com/r/MV88MXW)

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# Survey Results

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- **252 Respondents**
- **Highlights:**
  - 77.50% want a street with substantial tree coverage
  - 75% Strongly Agree or Agree that Trees make property more valuable
  - 40% of respondents have moderate greenery
  - 76% have at least one tree in their front yard
  - 31% want a small/medium tree, 40% large tree
  - Respondents: 51% District 4; 21% District 5; 13% District 2; 8% District 1; and 7% District 3.

# Tree Protection

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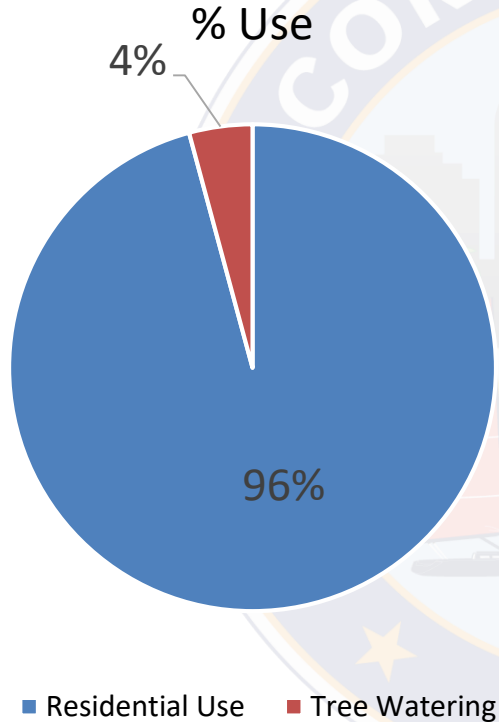
## **7.3.12.D: Existing Trees**

Healthy existing trees ~~2~~ 1.5 inches in caliper or greater and healthy existing palms of a minimum ~~2~~ 5 feet trunk height achieve the same amount of points as indicated in point schedules.

## **7.3.15: Tree Protection Credit**

1. Credit shall be given for tree and palm preservation within the street yard or landscaping areas. Trees and/or palms preserved from the Plant List in compliance with this Section may satisfy the tree and palm requirements of Subsection 7.3.12.
  2. All trees and palms to be preserved within an approved building site shall be flagged and encircled with protective fencing that extends beyond the full spread of the tree branches. No construction activity shall occur in an area that constitutes more than 50% of the critical root zone (as measured from the edge of the drip line to the trunk of the tree and palm) for each tree or palm being reserved. The critical root zone shall be left in a pervious condition after construction and development are completed. The root protection zone for each preserved tree or palm must remain unpaved until approval has been given by the Assistant City Manager of Development Services.
  3. A reduction of up to 5% of the required parking spaces shall be permitted when healthy, existing trees or palms identified in the Plant List are preserved on the property to satisfy the tree and palm requirement of Subsection 7.3.12. Landscape areas which qualify for the reduction of required parking spaces must provide impervious area of the critical root zone on a square foot for square foot basis. An average parking space, including aisles, is 350 square feet.
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# Water Consumption

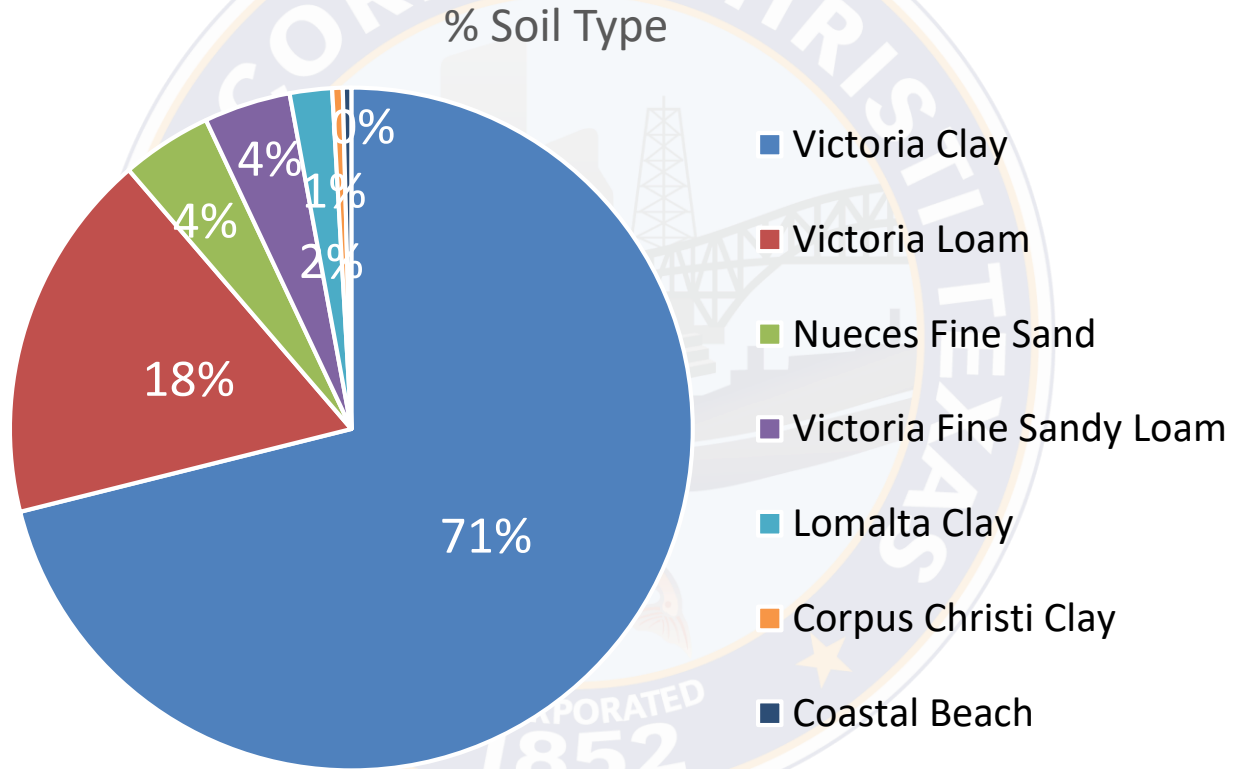


- Tree Watering:
  - Once a day for two weeks
  - 10 gallons per inch of caliper
  - 1.5" = 15 gallons
  - 2 weeks = 210 gallons
  - Texans use 164 gallons a day, roughly 5,000 gallons a month
- Water Rate:
  - \$13 first 2000 gallons
  - \$0.10 for 15 gallons
  - \$0.0065 per gallon
  - 14 days = \$1.36

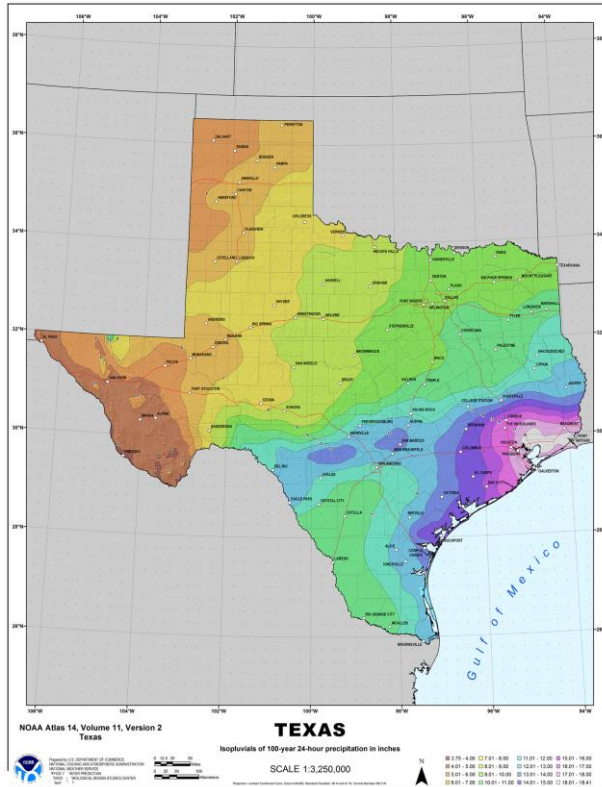
# Soil Types Map



# Soil Type Percentages



# Flood increase



- 100-year Flood Event
  - 24-hour event
  - Original level was 12.5 inches
  - New level is 14 inches
  - Higher interval of 100-year events.