



EMPOWERING CENTRAL TEXANS TO BUILD STRONGER COMMUNITIES THROUGH
PLANTING AND CARING FOR TREES.

PROJECT DESIGN:

REFORESTING AUSTIN'S PARKS AND RIPARIAN ZONES

[Davis White and Patterson (PARD) Single Tree Plantings and Onion Creek (WPD) Canopy Planting]

Davis White & Patterson Single Tree Plantings

OVERVIEW:

The Davis White Park single tree planting occurred at Davis White Park 6705 Crystalbrook Dr, Austin, TX 78724. Davis White was chosen based on the need for increased tree cover. The main goals for this project were to increase shade and enjoyment of the park through tree plantings.

The Patterson Park single tree planting occurred at Patterson Neighborhood Park 4200 Brookview Rd, Austin, TX 78722. Patterson was chosen due to the group Friend of Patterson Park being able to take care of the newly planted trees with new hose attachments. Trees were chosen to increase diversity in the park and to provide replacements for an aging stand of oaks.

Both locations are Parks and Recreation Department (PARD) land. The project operator for the Davis White and Patterson Single Tree Plantings is TreeFolks. The project is managed by Thais Perkins.

SCOPE:

TreeFolks completed this project with help from the Friends of Patterson Park and many volunteer groups. Davis White and Patterson saw 47 trees planted at the parks as single tree plantings. We do not anticipate losing any of these trees, and replacements would need to be coordinated with the parks. Friends of Patterson Park is providing tree maintenance at Patterson Park while PARD watering trucks are providing tree maintenance at Davis White.

The total budget for the Davis White and Patterson single tree planting projects is \$10,293.67 (Davis White was budgeted out to \$5,334.44 and Patterson to \$4,959.23).

QUANTIFICATION:

Quantification Tool: [QT Austin SingleTree DavisWhite Patterson 20190628](#)



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PROTOCOL ELIGIBILITY REQUIREMENTS:

Location of project:

- Davis White Park 6705 Crystalbrook Dr, Austin, TX 78724
- Patterson Neighborhood Park 4200 Brookview Rd, Austin, TX 78722

Project duration: 1/13/2018 to 3/31/2044

Planting date: 3/10/2018 (Patterson) and 3/31/2018 (Davis White)

TreeFolks has a written agreement with PARD and WPD to receive credits from this project. There were no legal requirements on TreeFolks to plant these trees.

Onion Creek Riparian Canopy Planting

OVERVIEW:

The Onion Creek planting took place on the Watershed Protection Department's land in Austin, Texas near Onion Creek park near Dixie Drive by the Yarrabee Bend South neighborhood. This location was chosen based on their proximity to communities that would benefit from the planting and the improved ecosystem function in this riparian system once a fully-fledged forest is generated.

The project operator for the Onion Creek canopy planting is TreeFolks. The project is managed by Thais Perkins.

SCOPE:

Onion Creek saw 1250 trees planted as a canopy planting. Our long-term maintenance plan for this site is for WPD to discontinue all mowing and let the trees grow. Survival rates of canopy plantings are low (25% expected, 29-31% actual) but we expect full canopy regeneration through a combination of surviving trees and natural regeneration. We do not plan on replacing lost trees. At Onion Creek the most commonly planted trees were *Sophora secundiflora*, *Frangula caroliniana*, *Acacia berlanderi*, and *Acacia farnesiana*. Onion Creek is 4.3 acres with approximately 291 trees planted per acre.

The total budget for the project was Onion Creek to \$14,439.63.



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QUANTIFICATION:

The Onion Creek planting occurred on 4.3 acres with an expected total canopy cover of 4.3 acres after 25 years. The carbon-by-area calculations from Greg McPherson resulted in a 106.7 tonnes of CO2 sequestered per acre after 25 years for this forest type. This planting results in 458.81 tonnes of CO2 sequestered after 25 years.

$$4.3ac * 106.7tCO2/ac = 458.81tCO2.$$

Link to Quantification Tool: [QT Austin Riparian OnionCreek 20190628](#)

Co-Benefits per year after 25 years

Ecosystem Services	Resource Units Totals	Res Unit/site	Total \$	\$/site
Rain Interception (m3/yr)	432.78	0.35	\$1,131.97	\$0.91
CO2 Avoided (t, \$20/t/yr)	9.38	0.01	\$187.67	\$0.150
Air Quality (t/yr)				
O3	0.0537	0.0000	\$159.57	\$0.128
NOx	0.0133	0.0000	\$39.62	\$0.032
PM10	0.0290	0.0000	\$32.75	\$0.026
Net VOCs	0.0006	0.0000	\$1.58	\$0.001
Air Quality Total	0.0966	0.0001	\$233.52	\$0.19
Energy (kWh/yr & kBtu/yr)				
Cooling - Elec.	22,016.39	17.61	\$1,671.04	\$1.34
Heating - Nat. Gas	11,548.44	9.24	\$119.99	\$0.10
Energy Total (\$/yr)			\$1,791.04	\$1.43
Grand Total (\$/yr)			\$3,344.20	\$2.68

PROTOCOL ELIGIBILITY REQUIREMENTS:

Location of project: Onion Creek @ 30.1690904, -97.7479743

Project duration: 1/13/2018 to 3/31/2044

Planting date: 1/13/2018 (Onion Creek)

TreeFolks has a written agreement with PARD and WPD to receive credits from this project. There were no legal requirements on TreeFolks to plant these trees.