

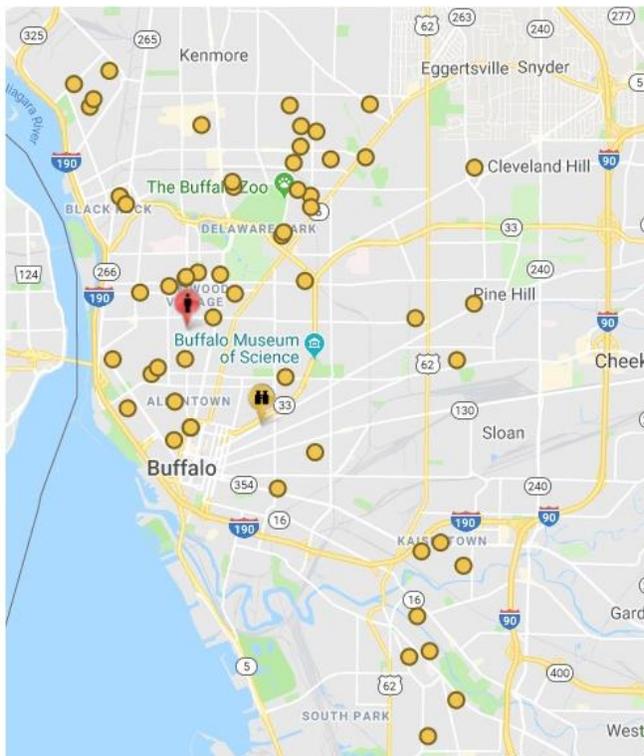
## City of Buffalo 2018 Citywide Street Tree Planting

In the fall season (Oct 15-Dec 31) of 2018 the city of Buffalo put out bids for a local licensed landscape company to plant 56 street trees in the city of Buffalo in various locations as shown in figure 1. Advertisements for bids were posted and licensed landscape contractors were given the opportunity to review bid documents and bid on the planting. The bid documents included tree species, quantities, and specifications for work. Tree species were selected based on site conditions such as available grow space, and presence of overhead utility wires. Tree species included: London plane tree (figure 2), swamp white oak (figure 3), Sargent cherry (figure 4), and Red jewel crabapple (figure 5).

The tree plantings were inspected after installation and again in the late spring of 2019 to determine tree mortality. All 56 trees were found in good condition.

Using the I-Tree planting calculator, I determined tree benefits gained from this planting effort. With a projected lifespan of 50 years and tree mortality of 10%, these trees will intercept over 3 million gallons of rainfall and manage over 700,000 gallons of storm water at a cost savings of \$6,640. Trees have the ability to pull greenhouse gasses (CO<sub>2</sub>) from the atmosphere and store it for long periods of time. 359,239 pounds of carbon dioxide will be sequestered with a cost savings of \$8,354. Air pollutants removed by these trees include 1,200 pounds of ozone, 152 pounds of nitrogen dioxide, 75 pounds of sulfur dioxide, and 73 pounds of fine particulate matter. Through this planting effort the trees will save 26,099 kWh of electricity at a savings of \$4,603. Additionally, 556 MMBtu of fuel will be saved at a cost savings of \$8,824. In total this tree planting over 50 years will save the City of Buffalo \$28,422.96.

**Figure 1.** Locations of plantings in the city of Buffalo



**Figure 2.** London plane tree



**Figure 3.** Swamp white oak



**Figure 4.** Sargent cherry



**Figure 5.** Red jewel crabapple

