



**Goodman Metrodistrict  
5 Year Tree Planting Plan  
Parks and Arapahoe Frontage  
8/5/16**

The following 5 Year Tree Planting Plan for the Goodman Metrodistrict is for planting the four park areas (Central Park, Highridge Park, Creekside Park, and the Ballfields) as well as the Arapahoe Road Frontage from the West end to Waco Street as was requested.

Please see the attached site maps with planting locations for each area by year. The planting plan is based on the annual budget of \$20,000/year for new tree planting. We have allowed a little less than this amount to address winter watering and other possible care and also to allow for the possibility of planting a few extra or additional trees if situations dictate. This plan is to be used as a guideline for plantings for the next 5 seasons. It can be changed or modified or the plan can be sped up/done faster or slowed down/done slower as needed. We are planning to continue our role and involvement in actively managing the tree plantings when the Board gives the go ahead for these plantings.

In developing Goodman's 5 year tree planting plan, we carefully considered the site conditions at each location, current plantings, insect/disease issues including Emerald Ash Borer, soil and water conditions, use and function of the areas – short term and long term, sightlines and views, as well as to diversifying the tree species in Goodman's urban forest with a healthy variety of trees. This will make for a more interesting and attractive look to these areas, but more than that, this species diversification will lessen your dependence on just 5-6 primary species of trees and create a more stable stand of trees that can withstand the various weather, insect, diseases, and other environmental challenges. We also have selected both deciduous: shade and ornamental trees and some evergreens. This being said, there is no perfect tree and everyone has a different opinion on what trees they like/want or dislike. We have selected a mixture of good species, some of which already exist at Goodman in limited numbers. Some of the new species, like the current stand of trees will thrive, but a few of these may not do as well and may need to be replanted with something else...this is the nature of trees especially in our challenging growing environment.

With the plantings, it is very important that quality trees are chosen, they are planted properly, and then they are well cared for especially initially until they become established. Supplemental watering including winter watering is essential for planting success, including winter watering with the planting agreement is recommended, but not required. All trees should include a 1 or 2 year warranty with at least first year supplemental watering, we will discuss this further when it comes time to get planting bids.

### **General Planting Comments for Each Area:**

In all Parks/Areas, we are adding new tree species for diversity and interest. In general, the new plantings are intentionally aggregated or grouped together in areas in a given planting year as opposed to being scattered, this is in part at least for the initial ease of care.

#### **Central Park -**

The trees in the park now are fairly good overall with a nice mix of healthy trees and they are mainly spread around the perimeter of the park with the large center Park area being left open. We are continuing on this theme and adding/filling in around the perimeter. There is opportunity for even more planting around the North, West, and South sides if desired, but smaller open lawn areas are nice too. We are also considering Emerald Ash Borer and the phasing out or loss of some of the Ash trees.

#### **Highridge Park -**

This park is already fairly well planted especially as the existing trees continue to grow and mature. There seems to be value in having a park that is different and that has a relatively greater tree canopy and greater tree density than the other parks in the area, but this is not required. There are a considerable number of Ash trees, we are looking at phasing out half of these with a “shadow planting” of replacement trees. We could decide to plant fewer trees at Highridge and shift some of these to Arapahoe Road or other Parks.

#### **Creekside Park -**

We focused on adding trees around the parking lot perimeters to shade the cars and to buffer the visibility of the parking lot. The trees in the park now are fairly good overall with a nice mix of generally healthy trees and they are mainly spread around the perimeter of the park with the large soccer field area being left open. We are continuing on this theme and adding/filling in around the perimeter somewhat, future perimeter plantings around the soccer field can be done later, if desired.

#### **Ball Fields -**

There is not a lot of room or need for more trees here, so we took the approach of replacing the trees that have gone out and doing that right away, early in the overall

planting rotation so the new trees will not be far behind the existing trees here. Plantings in future years will be limited to replacements if any are needed.

### **Arapahoe Road Frontage –**

As directed, we have not included any frontage areas East of Waco and are not planning to plant much at either the Waco or Buckley entries since they are essentially full already. The Arapahoe frontage is a big space and area and is especially challenging with its' sloped, South facing exposure. The goal here is to fill in the gaps and open areas to provide a full and attractive frontage facing Arapahoe, but also to provide sound and visual buffering for the residents. We are intending to use hardy plant materials and to plant trees, but also larger scale shrubs that are intended to be allowed to grow and 8-16 feet at maturity). The shrubs will start out small as 5 gallon plants and they should be maintained for growth and not highly pruned except to promote good structure and to allow for maintenance operations. Most of the planting are intended to be directly into the lawn in the middle of the slope between the sidewalk and the top of the hill, but there will be some planting along the top of the hill too.

We are not providing a map of planting locations here because of the scope and size of the area, planting locations each year will be reviewed with the District Manager and/or Board or landscape committee. Initially there may be some fill in of plantings to bed areas where shrubs have gone out.

### **Planting Maps:**

These tree planting maps are guides, the final placements of trees will be dictated by field conditions including irrigation and other factors. Major changes or deviations in the planting locations, if any will be communicated. Tree species can also be changed, but this should be done by an intentional and thought out choice and not just to accommodate a contractors' preference. It may take a little extra effort to find some of these trees or even possibly a special order.

The maps show the general tree types and planting year: Shade, Ornamental, Evergreen, and Shrubs. (Examples – S19 = Shade tree to be planted in 2019, O16 = Ornamental Tree to be planted in 016).

Please contact me/us if you have any questions now or as the plantings progress.

Sincerely,  
Bob Howey  
ISA Certified Arborist / ASCA Consulting Arborist  
Tree Analysis Group, LLC  
303-726-1952 / bob@treeanalysis.com

**Goodman Metrodistrict – 8/5/16**  
**Tree Plantings By Area and Planting Year with Total Trees Per Year**  
**Tree Counts/Common Names**

**Central Park**

2016 - 8: 4 American Yellowwood, 2 Winter King Hawthorn, 1 Bradford Pear, and 1 Skyline Honeylocust.

2017 - 9: 3 Japanese Pagodatree, 3 Redbud, and 3 Crimson Spire Oak.

2018 - 12: 2 Horsechestnut, 4 Heritage Oak, 3 Swamp White Oak, and 3 Western Catalpa

2019 - 10: 2 Bigtooth Maple, 3 Winter King Hawthorn, 2 London Planetree, and 3 Sensation Boxelder

2020 - 11: 3 Kentucky Coffeetree, 3 Horsechestnut, 3 Chinakpin Oak, and 2 Burr Oak

**Highridge Park**

2016 - 1:1 Blue Spruce

2017 - 3: 2 Western Hackberry and 1 Heritage Oak

2018 - 12: 1-1/2" 9 Hornbeam and 3 Redbud

2019 - 14: 1-1/2" 6 Crimson Spire Oak and 6 Columnar English Oak plus 1 Kentucky Coffee tree and 1 Horsechestnut.

2020 - 5: 2 Ginko and 3 Larch

**Creekside Park**

2016 - 6: 2 Heritage Oak, 1 Burr Oak, 1 Radiant Crabapple, and 2 Winter King Hawthorn

2017 - 7: 2 Winter King Hawthorn, 3 Western Catalpa, and 2 Western Hackberry

2018 - 6: 3 Chinkapin Oak and 3 Burr Oak

2019 - 5: 3 Mulberry and 2 Western Catalpa

2020 - 6: 6 Crimson Spire Oak

**Ball Fields**

2016 - 4: 1 Swamp White Oak, 1 Greenspire Linden, 1 Skyline Honeylocust, and 1 Cottonwood-confirm/match

2017 X - None

2018 X - None

2019 X - None

2020 X - None

**Arapahoe Road Frontage**

2016 - 10 trees/30 shrubs: 1-1/2" - 3 Crimson Spire Oak and 3 Swamp White Oak / 10 Dwarf Siberian Peashrub, 10 Threelobed Sumac and 10 Wayfaringtree

2017 - 10/30: 1-1/2" - 5 Washington Hawthorn and 5 Thunderchild Crabapple / 15-Purple Smoketree and 15-Autumn Brilliance Serviceberry

2018 - 12: 6 Sensation Boxelder and 6 - 6' Bosnian Pine

2019 - 20: 1-1/2" - 10 Autumn Blaze Pear, and 5 Washington Hawthorn and 5  
Thunderchild Crabapple

2020: 12: 1-1/2" - 6 Western Hackberry and 6 - 6' Bosnian Pine

Tree Sizes = 2" caliper trees are to be planted unless otherwise noted.

## **Goodman Tree Planting Specifications**

### **General Requirements:**

All trees and plants are to be: top quality and grade and carefully transported and held prior to planting.

All trees will be planted to local, ALCC industry standards including: the over excavation of planting pit with a backfill that includes 20-30% organic soil amendments, double staking, with saucers or basins that can hold water for post planting irrigation. All twine shall be removed from the tree as well as all plastic root ball wrap or container. The top half or more of the wire basket, if present, shall be at least half removed. No nursery stakes shall be left on trees unless approved. Immediately following planting, all trees will be watered in and Goodman Metrodistrict should be notified so they can inspect and approve the planting within one week of planting. If the installing contractor has any question regarding proper planting they should contact Tree Analysis Group, LLC prior to planting.

Goodman should be notified at least one week in advance of the scheduled planting date, time, and planned planting locations. Goodman Metrodistrict or their designated representative reserves the right to and may inspect the trees prior to delivery. They can also, at their discretion, reject plants that they deem unacceptable or that are in poor or questionable condition. Acceptance or approval of trees will not be un-necessarily withheld.

### **Post Installation Maintenance:**

Following planting, the contractor will inspect the plantings quarterly or more often if they deem necessary. Any issues or concerns that they find should be communicated in writing to Goodman.

Trees should be checked for soil moisture on each inspection to confirm that it is adequate and acceptable. Regular irrigation from the existing irrigation system is being assumed to be provided, no reworking of the irrigation system is planned or to be included, but if the installing contractor does not believe that the existing system is adequate, then they should make formal note or meail of this to Goodman. The contractor can also request additional watering to the planting area or trees if they deem it is needed.

Supplemental watering should be provided by the contractor over the first year to get the trees established and so as to minimize stress on the trees. Six waterings through the summer and winter, are to be included with a price for additional waterings, if they are deemed necessary: at least two of these waterings are to be within the first two months and 2-3 of these are to be in the winter. This should insure at least the basic supplemental watering is provided.

First year tree wrap will be provided by the installing contractor to and on the trees as needed. These trees will be wrapped by December 1 and unwrapped by April 15<sup>th</sup>. Installing contractor will be responsible for damage if the trees are not wrapped.

A one (1) year (or 2 year) warranty is to be included for all plant material and trees will be fully warranted barring any Acts of God, third party neglect, or other causes. Generally less than one replanting will be necessary, but if there are issues or problems with the planting then up to two re-plantings may be required. Goodman can request replacement if the plant material has declined.

## Goodman Metrodistrict - 2016 Tree Planting Proposal

### Tree Count - Total Trees to be Planted - All Areas - Per the Planting List:

\_\_\_\_\_ - 2" caliper B & B Trees

\_\_\_\_\_ - 1-1/2" caliper Container Trees

\_\_\_\_\_ - 6 foot Evergreens

\_\_\_\_\_ -#5 Shrubs

- pricing to include 6 post-installation, first year waterings.
- Optional additional waterings: \$\_\_\_\_\_/ full watering.

**Bid Total \$**\_\_\_\_\_

Proposal by/from: \_\_\_\_\_(company)

Contact Person: \_\_\_\_\_

Phone/Email: \_\_\_\_\_/ \_\_\_\_\_@\_\_\_\_\_

Any other bid comments/notes:

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## **Goodman Metrodistrict Recommended First Year Tree Care / Maintenance**

### **Irrigation/Watering:**

During the first year establishment period, it is important that soil moisture be consistently maintained and the trees are not over or under watered. Trees should be checked for adequate soil moisture with random soil plugs being pulled to confirm moisture levels.

### **Tree Wrap:**

First year tree wrap will be provided by the installing contractor to and on the trees as needed. These trees will be wrapped by December 1 and unwrapped by April 15<sup>th</sup>. Tree wrap should be continued in future years on the trees where it is needed until reach 4" caliper.

### **Fertilization:**

The trees should not need fertilization in the first year, but this would be beneficial in following years. Pruning should be likewise unless there is breakage or damage, if so remove the damaged limbs.

### **Insect/Disease Control:**

All trees should be monitored for Insect and Disease activity and corrective action taken if/as needed. Again, we would not expect significant insect/disease issues

### **Tree Stakes/Ties:**

Tree stakes and ties should be checked to make sure that they are functioning properly and not causing damage to the trees: adjust these, if necessary.

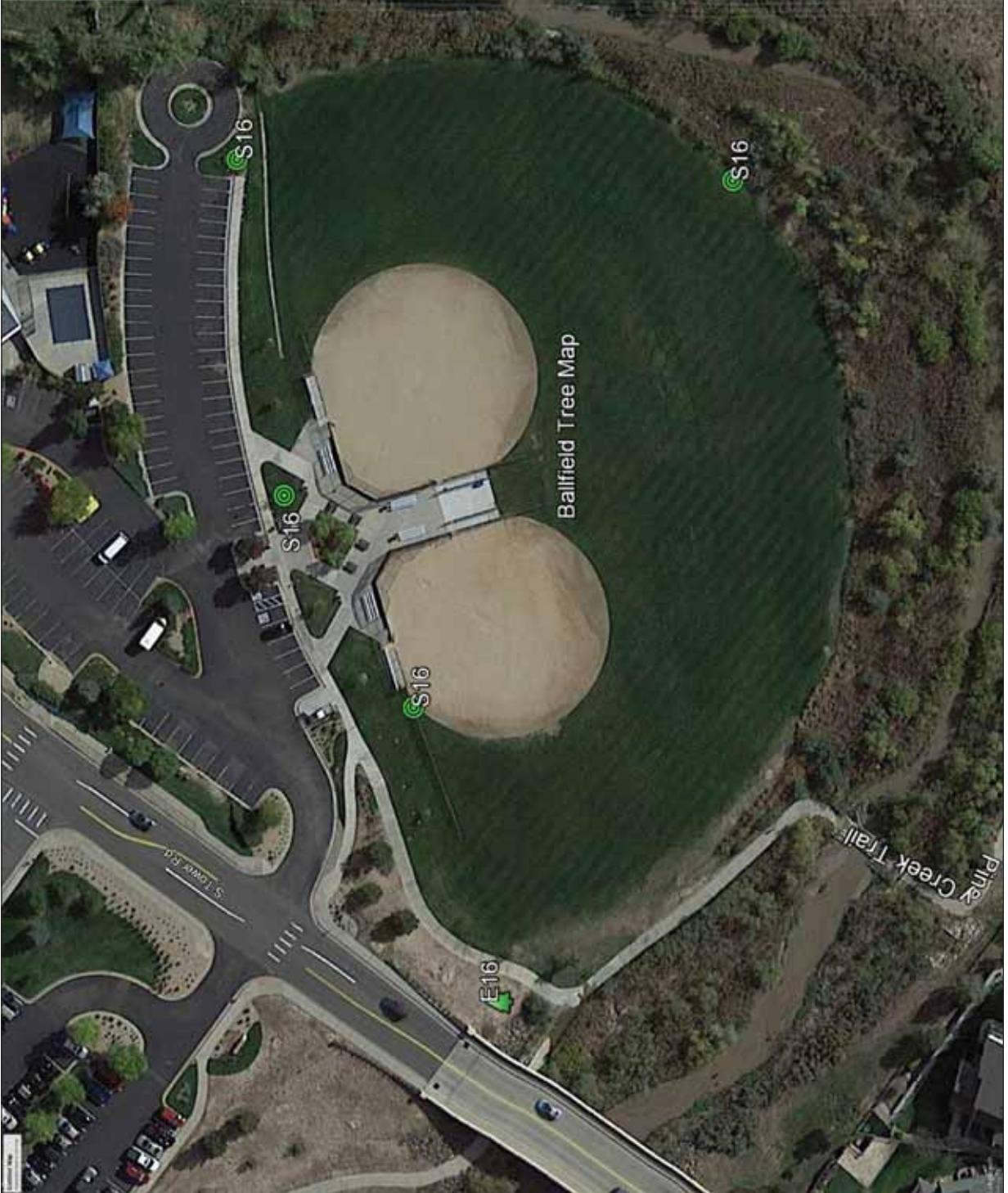
For all trees including trees planted in prior years, the above irrigation, fertilization, plant healthcare, and pruning should be provided as needed. A specific care program or Tree Management Plan for the Goodman trees should be created to make sure ongoing, consistent tree care is provided and that the health, aesthetics, and value of the trees are retained for years to come.



- S - SHADE
- O - ORNAMENTAL
- E - EVERGREEN
- 16 - REPLACEMENT YEAR

- 2016 REPLACEMENTS
- 1- SWO
- 1- HL
- 1- CW
- 1- AP
- 1- LINDEN

- TREE LEGEND**
- SWO - SWAMP WHITE OAK
  - HL - HONEY LOCUST
  - CW - COTTONWOOD
  - AP - AUSTRIAN PINE
  - L - LINDEN



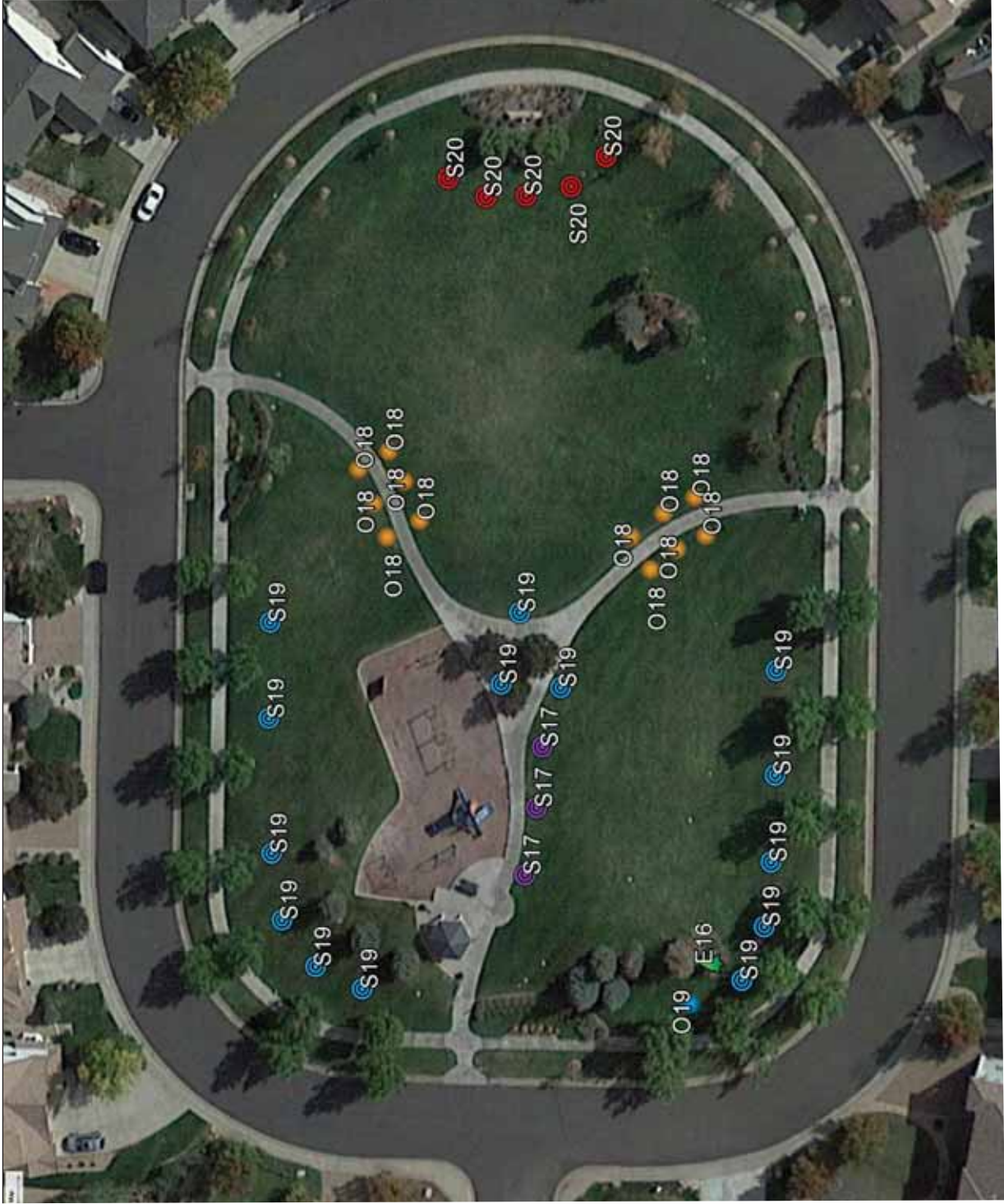
Goodman Tree Maps  
Centennial, CO  
Ballfield Tree Map

DATE:	08/09/2016
DRAWN BY:	DJS
DESIGNED BY:	DJS
CHECKED BY:	RSB
PROJECT #:	N/A

A



S - SHADE  
O - ORNAMENTAL  
E - EVERGREEN  
16 - REPLACEMENT YEAR



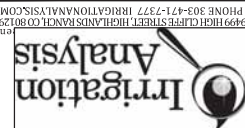
Goodman Tree Maps  
Central, CO  
Highridge Park Tree Map

DATE:	08/09/2016
DRAWN BY:	DJS
DESIGNED BY:	DJS
CHECKED BY:	RSB
PROJECT #:	N/A

B



S - SHADE  
 O - ORNAMENTAL  
 E - EVERGREEN  
 16 - REPLACEMENT YEAR



9940 HIGH CLIFFE STREET, HIGH ANIBS RANGL CO 80129  
 PHONE 303-471-7377 IRRIGATIONANALYSIS.COM

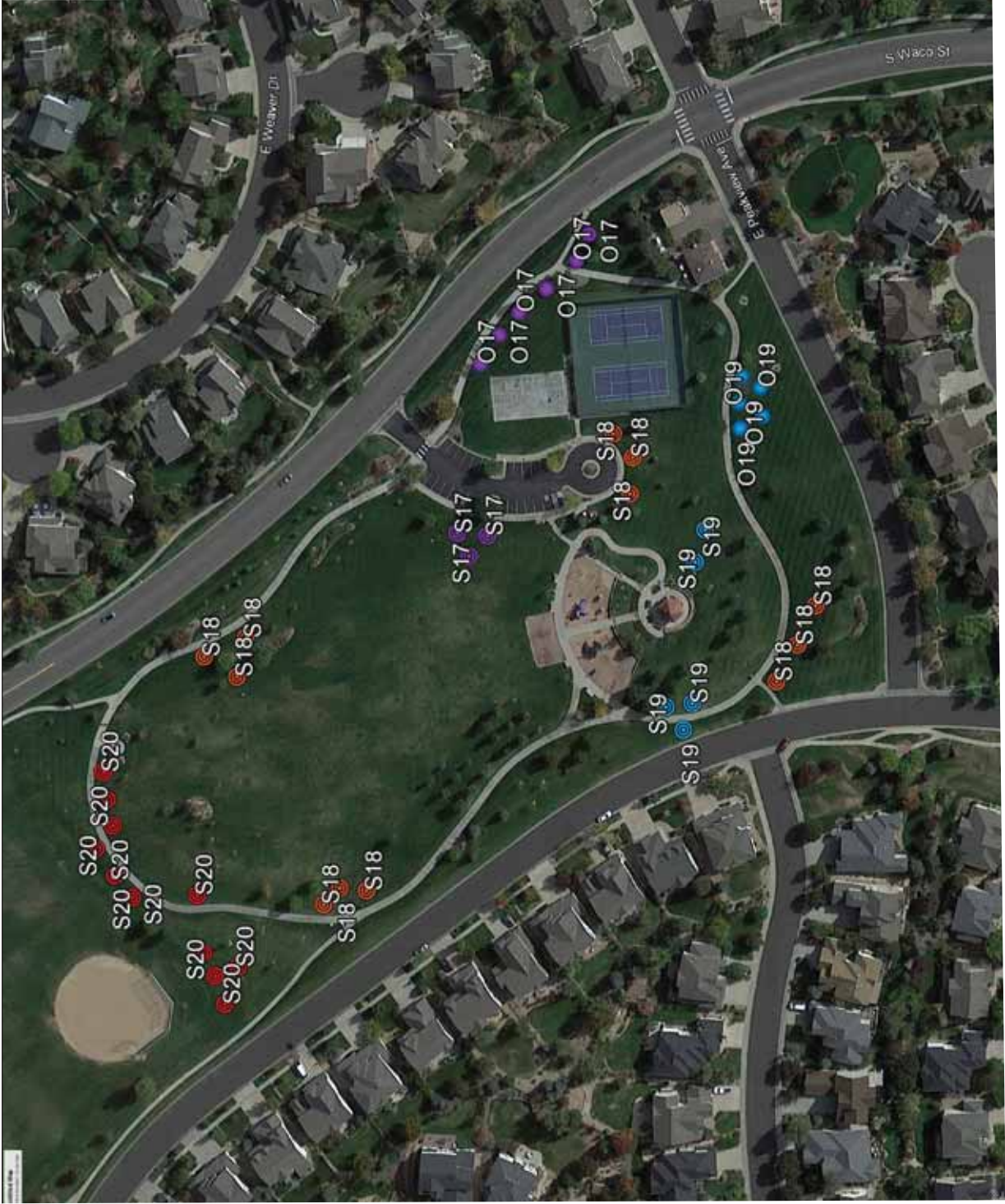
Goodman Tree Maps  
 Centennial, CO  
 Creekside Park Tree Map

DATE:	08/09/2016
DRAWN BY:	DJS
DESIGNED BY:	DJS
CHECKED BY:	RSB
PROJECT #:	N/A

**B**



S - SHADE  
O - ORNAMENTAL  
E - EVERGREEN  
16 - REPLACEMENT YEAR



9949 HIGH CLIFF STREET, HIGHLANDS, RANGEL, CO 80129  
PHONE: 303-471-7377 IRRIGATIONANALYSIS.COM

Goodman Tree Maps  
Central, CO  
Central Park Tree Map

DATE:	08/09/2016
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DESIGNED BY:	DJS
CHECKED BY:	RSB
PROJECT #:	N/A

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