



## Parks & Public Lands

### URBAN FORESTRY PROGRAM

1965 W 500 S SALT LAKE CITY, UT 84104

PHONE: 801-972-7818

### Tree Protection and Preservation Policy

**City code mandates the protection of trees during construction.** The urban forest contributes greatly to the environment, quality of life and property value. Tree protection is designed to preserve and protect tree health by avoiding damage to tree roots, trunk and crown. Protecting and preserving trees will reduce long term maintenance costs and tree replacement cost.

Tree roots serve four primary functions: absorption, conduction, storage, and anchorage. Although root cutting usually does not result in immediate visible changes to the tree, construction activities can cause irreparable damage to trees such as the death of the entire tree or large portions of the tree, and compromised anchorage from destroyed root systems, all of which are great public safety concerns because of the increase of the likelihood of tree failure.

Tree roots often spread two to three times wider than the drip line of the canopy. Ninety percent of a tree's roots are found in the top eighteen inches of soil. These facts illustrate why it is so important to use care when working near existing trees.

#### Tree Protection Guidelines for Construction Sites

Prior to beginning demolition or construction work that is near trees on any property, the following tree protection plan shall be implemented

1. Tree protection practices will include establishing the tree protection zone (herein known as TPZ). The TPZ will be 1 foot radius from the base of the tree's trunk for each 1 inch of the tree's diameter measured at 4.5 feet above grade (referred to as dbh)..

#### Tree Protection Zone

Tree diameter	Tree Protection Zone radius	Total protection zone diameter including trunk
2 inches	2 feet	4+ feet
6 inches	6 feet	13 feet
20 inches	20 feet	42 feet
46 inches	46 feet	96 feet

**When trees are on the parkstrip, the TPZ will be the entire length of the parkstrip from curb to sidewalk.**

The TPZ will be defined by 6' tall chain link fencing. Fencing will be erected with free standing

posts, NOT posts driven into the root system. There shall be appropriate signage posted on each linear span of the fence; example of the signage is included with this document. Signage shall be laminated on 8 ½ x 11" paper. The TPZ fencing and signage will remain until the project is complete or until Urban Forestry has provided written authorization allowing the removal of the fencing. Tree protection fencing must be depicted on the site, demolition and grading & drainage drawings.

**There will be no digging, trenching, grading, siltation, masonry set-up or storing of materials or equipment in the TPZ.**

- 2 All trees are to remain protected, unless given approval and permitted for removal by the Urban Forestry Office. If tree removal is permitted a mitigation fee will be required. If trees are damaged or destroyed (above ground or below ground) due to construction activity, the contractor will be assessed the appraised value of the trees payable to Salt Lake City. A permit is required for all removal and pruning of city trees approved and issued by the Salt Lake City Urban Forestry office. (801-972-7818). Tree pruning and removal permits will only be issued to I.S.A. Certified Arborists.

A minimum 48 hours' notice must be given to the Urban Forestry Program prior to any request for onsite meetings.

- 3 Trees to be preserved during all construction activities shall have a TPZ as shown on all plans. The TPZ shall be clearly marked on the site plan, demo plan, grading plan and landscape plan.
- 4 Only tunneling or boring will be allowed in the TPZ at a depth of 36 inches minimum. The access pit must be located outside of the TPZ. If this is not feasible, written authorization must be obtained from the Urban Forestry office PRIOR to altering the TPZ.
- 5 No equipment (except for a sod cutter) shall be allowed inside the tree protection zone. If special provision for excavation is approved by the Urban Forestry Office, it shall be done by hand or a soil vacuum or air spade.
- 6 Use tunneling or boring for irrigation and utilities. No roots larger than 4" in diameter will be cut. All roots will be cut cleanly with a saw. In situations where a root has been damaged, a clean cut shall be made on the root at the edge of the trench closest to the tree trunk.
- 7 If replacing the sidewalk, no roots larger than 4" in diameter shall be cut. Other alternatives such as ramping or a radius or arch around the existing trees will be used. Roots will not be ripped out with a back hoe. Cuts on tree roots shall be smooth and clean, made with a saw. Any exposed cut roots will be covered as quickly as possible to prevent them from drying out and the tree should be watered immediately. If tree roots are to remain exposed for more than four to six hours, they must be covered with burlap and kept moist at all times.
- 8 Tree care contractors providing services to public trees shall be certified arborists with the International Society of Arboriculture, licensed to do business in Salt Lake City and be

registered with the Utah Division of Commercial Code, insured against personal injury and property damage. Prior to beginning work on tree(s) the tree care contractor shall contact the City's Urban Forestry Program to obtain appropriate public property tree work permit(s).

- 9 Trees shall not be used to support any scaffolding, signs, temporary utility, or any other device. Sidewalks and paving levels should be contoured whenever possible to avoid root cutting. If damage occurs to a protected tree, immediate contact shall be made with the City Forester.
- 10 Do not change the soil grade by cutting or filling in the TPZ
- 11 Do not do any additional planting within 10' of the trunk.
- 12 In certain circumstances, the installation of wood chips from the trunk to the dripline at a depth of 2"-4" may be required. For example, if sod is removed under the tree, woodchips would be required.
- 13 Trees shall be watered according to the following guidelines:
  - a. Established trees need deep watering once every two weeks with low pressure at the drip line to ensure that the ground is soaked to a depth of at least 8 inches. Generally 5 gallons per inch of trunk diameter at breast height.
  - b. Young or newly planted trees need to be watered every 3—4 days, depending on temperature.

#### Underground Utility Work

When given approval by the Urban Forestry office to work in the TPZ to replace or restore underground utilities, use only a soil vacuum or hand dig, leaving roots larger than 4" in diameter untouched.

1. Where possible when replacing existing utilities such as water or sewer lines very near to preserved trees, abandon the lines and reinstall farther away from the tree.
2. Tunneling or boring will always be done at a minimum depth of 36 ". This shall be performed in a manner and location least damaging to tree roots.
3. Where large anchorage roots are encountered, hand digging and bridging of roots shall be done, leaving roots intact.
4. When encountering roots over 4" in diameter the Salt Lake City Urban Forestry office will be consulted prior to cutting to find some other course of action. Any cutting of tree roots shall give due consideration to future welfare of the tree. Proper action shall be taken so as to protect, and preserve the roots. Roots will not be ripped out with a back hoe. Cuts on tree roots shall be smooth and clean, made with a saw.

#### Tree Pruning

1. All Pruning on public trees will be approved by the Urban Forestry with the issuance of a permit. No pruning will be allowed that will compromise the aesthetics or structural integrity of a preserved tree. Tree care contractor providing services to public trees shall be a certified arborist with the International Society of Arboriculture, licensed to do business in Salt Lake City, and be registered with the Utah Division of Commercial Code, insured against personal injury and property damage. Prior to beginning work on trees(s) the tree care contractor shall contact the City's Urban Forestry Division to receive authorizing tree permits.



# Tree Protection Zone

**DO NOT REMOVE, ADJUST, OR ENCROACH ON THIS FENCING.**

**NO CONSTRUCTION RELATED MATERIALS, SUPPLIES OR  
EQUIPMENT ARE PERMITTED WITHIN THE FENCED AREA.**

**#BLD \_\_\_\_\_**

**Salt Lake City Urban Forestry 801-972-7818**

# **INSTRUCTIONS**

**Reproduce this sign enough times that it can be placed on the street side and on the private property side of each TREE PROTECTION ZONE.**

**Fill in approved building permit number on the front side.**

**Plastic laminate the signs for weather resistance.**

**Affix the filled in and laminated signs to the tree protection fencing using zip or twist ties.**

**Place sign at regular intervals on all sides of fencing for maximum visibility.**

**Place sign on fencing so it is visible to construction personnel and from the street.**

**Keep the sign in readable condition for the entire duration of the project.**

**For information on these requirements contact the Salt Lake City Urban Forestry Program at 801.972.7818.**



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### **Urban Forestry Plan Review Checklist**

The following information is required on all Site, Demolition and Landscape plans submitted for review.

- ☐ All plans in the drawings folder in ProjectDox must be labeled i.e. Demolition, Site, Landscape etc.
- ☐ Parcel Address: If parcels are being combined, label all properties involved with parcel street address, not parcel I.D.
- ☐ Adjacent Properties: Depict addresses and property lines.
- ☐ Type of Project: Describe the nature of the project, i.e. new home construction, new building construction, interior remodel etc.
- ☐ Depict and label all streets, sidewalks, curbs, driveways and park strips.
- ☐ Depict and label public right-of-way property line.
- ☐ Illustrate and label existing above ground and below ground utilities.
- ☐ Illustrate and label proposed above ground and below ground utilities.
- ☐ Depict all trees on both private and public property on the site and within 15 feet of the site (including park strip trees and adjacent private property trees). Trees (especially public property trees) must appear on the site plan, demolition plan and the grading and drainage plans.
- ☐ **Tree Preservation information:** All existing trees on site (both private and public property), and within 15 feet of the site (including park strip trees and adjacent private property trees) must be easily identified on the drawings and must include the following information:
  - Tree Species
  - Size expressed in "d.b.h." (dbh is **D**iameter at **B**reast **H**eight and is measured at 4.5 feet above grade)
  - Condition

- Status- “proposed removed” or “proposed preserved”
  - Any proposed pruning or root cutting
  - Depiction of tree protection fencing (tree protection fencing must be **free standing, 6 feet tall chain link**) for trees to be preserved- See Tree Protection and Preservation document for further details.
  - Landscape plans shall depict only proposed preserved and proposed new trees
  - Trees (and tree protection fencing) that are proposed to remain and be protected must be depicted on the site, demolition and grading & drainage plans.
- ☐ A comprehensive **tree inventory spread sheet** of all public and private property trees shall be provided on the plan indicating
- Tree species
  - Tree size (dbh)
  - Location (private or public property)
  - Condition (Good, Fair, Poor, Very Poor)
  - Status (proposed removed or proposed preserved)
  - Additional notes (i.e. justification for removal of a tree that is not in the footprint of proposed improvements/changes)
  - Total tree count
  - Total tree dbh inches to be preserved
  - Total tree dbh inches to be removed
- ☐ Depict footprints for all existing and proposed structures and hardscapes. Landscape plan should only show remaining existing and proposed structure footprint.
- ☐ Label all proposed vegetation in park strip and private property with size, species and quantity. Plan must indicate distances between trees to be planted in the park strip, distances between trees and utilities, distances between trees and driveways and buildings.

#### **Tree planting information for planting in the Public Right of Way (park strip)**

- All trees planted in the public right of way require a permit issued by the SLC Urban Forestry office prior to approval in ProjectDox.
- All trees planted in the public right of way must be a *minimum* of 2” caliper in size.
- The site chosen for planting must meet the following criteria:
  - 5’ from water meter and/or utility box
  - 10’ from fire hydrant
  - 5-10’ from residential driveway
  - 5-10’ from property line of adjoining parcel
  - 5-10’ from non-traffic conducting signage
  - 5-10’ from utility pole and/or light
  - 20’ from an unregulated intersection (20’ back from intersecting sidewalks)
  - 30’ from stop signs
  - 30’ from commercial driveway and/or alley
  - 40’ from an intersection with traffic lights (40’ back from intersecting sidewalks)
  - 15-20’ from a tree that is small in size at maturity (less than 30’ tall)
  - 20-30’ from a tree that is medium in size at maturity (30 to 50’ tall)



- 30-40' from a tree that is large in size at maturity (more than 50' tall)
- Comprehensive tree planting directions will be provided with all planting permits.



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## Tree Removal Mitigation Policy

### **Public Property Trees**

Trees on public property provide a wealth of benefits to Salt Lake City. When a public property tree is permitted to be removed (through the Public Property Tree Work permitting process), as a condition of the permit, the permittee may be required to mitigate the loss of public tree benefit as follows:

- Public property trees, which are removed, shall be replaced on an inch per inch basis.

*For Example: Removal of a 10" d.b.h. tree from public property will require ten (10) caliper inches of new trees to be planted.*

- Replacement trees must be planted back onto the parkstrip from where the original tree was removed
- Replacement trees shall be between 2" and 3" in caliper at time of planting.

*Therefore, to replace a 10" d.b.h. tree that has been removed, either (5) 2" trees can be planted or (2) 3" trees and (2) 2" trees can be planted.*

- If there is not adequate space to accommodate any or all of the required tree replacement inches on the parkstrip, the permittee shall pay to the City the cash value of any outstanding tree replacement inches.

The cash value of outstanding tree replacement inches shall be determined by multiplying the 'cost per inch of required tree replacement' by the total number of outstanding tree replacement inches.

- The city's 'cost per inch of required tree replacement' is determined by referencing the values assigned in the *Species Rating for Landscape Appraisal in Utah* guide #NR-ff1001 ([forestry.usu.edu/publications/Utah-forest-facts](http://forestry.usu.edu/publications/Utah-forest-facts)).

Currently, the 'cost per inch of required tree replacement' is \$172.00.

*For example: the cash value for removing a 10" d.b.h. tree is \$1,720.00 (\$172.00 x 10).*

As the cost to purchase and plant trees fluctuates, so too shall the city's 'cost per inch of tree required tree replacement.'

- The Urban Forestry Program shall reserve the right to lessen the required tree replacement inches for any tree removed, based on tree condition, species, location, or the new tree planting plan.

### **Private Property Trees**

See section 21A.48.135 of the Salt Lake City Code  
[http://www.sterlingcodifiers.com/codebook/index.php?book\\_id=672](http://www.sterlingcodifiers.com/codebook/index.php?book_id=672)



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### **Tree planting requirements for park strip trees**

Planning code 21A.48.060 paragraph D. Park Strip Trees - requires that a parkstrip tree shall be provided at every 30 feet.

No tree shall be planted in a parkstrip without first obtaining a permit from the Urban Forestry Program.

The width of the park strip and overhead (high voltage transmission) lines determine what trees can be planted based on their mature size.

Salt Lake City Urban Forestry Program specifies the following requirements:

- 3-5 ft park strip - small tree at maturity (less than 30 ft tall).
- 5-8 ft park strip - with high voltage transmission lines – small tree at maturity (less than 30 ft tall).
- 5-8 ft park strip - with **no** overhead wires-medium tree at maturity (30 -50 ft tall).
- 8 ft and greater park strip - with **no** overhead wires- large tree at maturity (50 ft and greater).
- 8 ft and greater park strip - with high voltage transmission lines – small tree at maturity (less than 30 ft tall).

***The planting location for required trees shall not lessen the number of viable planting sites.***

**\*\*Overhead street light, cable, fiber optic and phone lines do not fall under the category of high voltage transmission lines.**

Use the following as guidelines for placing trees:

- 5' from water meter and/or utility box
- 10' from fire hydrant
- 5-10' from residential driveway
- 5-10' from property line of adjoining parcel
- 5-10' from non-traffic conducting signage
- 5-10' from utility pole and/or light
- 20' from an unregulated intersection (20' back from intersecting sidewalks)
- 30' from stop signs
- 30' from commercial driveway and/or alley
- 40' from an intersection with traffic lights (40' back from intersecting sidewalks)
- 15-20' from a tree that is small in size at maturity (less than 30' tall)
- 20-30' from a tree that is medium in size at maturity (30 to 50' tall)
- 30-40' from a tree that is large in size at maturity (more than 50' tall)