# TREE SERVICE OPTIONS

### Ad1 Anti-Desiccant

A treatment in December and again in February to protect trees from winter desiccation.

#### Anthracnose Treatment

Treat with Alamo fungicide via trunk injections during full leaf at labeled rates.

# **Aphid Control**

Treat with a basal trunk spray of the insecticides Safari or Arena and the surfactant Pentra-Bark at labeled rates.

### Arbor jet Tree age Trunk Injection for treatment of the Emerald Ash Borer

The tree will be injected at the base with treage, the treatment is effective for two years against the Emerald Ash Borer and other insects feeding on the tree. After two years the tree must be treated again.

# Bark Beetle/Borer Spray

A spring and mid-summer visit to protect trees from bark borers or other damaging pests.

# Bark Beetle Borer Treatment (BB1)

A spring spray treatment of the trunk and large limbs to help protect trees from attacks by Mountain Pine Beetle, Pinyon Pitch Mass Borer, Ash Borer, Zimmerman Moth, Engraver Beetle, and other boring insects.

#### **BARK TRACING**

Remove loose and poorly attached bark around wounds left by limb failure or mechanical damage. This process will help spur the growth of the cambium layer of cells that seals off the spread of internal decay.

### **Bracing Support**

Install a threaded rod brace through the selected branch union.

### **Brush Disposal**

Chip brush and dispose of chips at recycling facility.

### **Building Clearance**

Clear foliage from buildings and security lights by 3-6 feet. Raise over walk-ways to 8 feet.

### Cable EHS

Supply and install EHS cable strands to help support weak unions. Cable systems help keep tree stems moving as a unit during loading events. Failures often occur when stems move violently in opposite directions. Keeping stems moving in the same direction as a unit helps minimize failure during these events.

### Cable Inspection

Make an aerial inspection of existing cables. Tighten to appropriate tension for materials used to install cables. Make recommendations for cable strand replacement as required.

# **Cavity Treatment**

Remove all soft wood with a hammer and chisel. Leave hard wood intact. Do not damage existing callus tissue. Clean the area thoroughly with a mixture of 50% water and 50% bleach. Fill cavity with urethane expandable foam to surface of surrounding wood once area has dried. Cover foam with a site appropriate water proof material (e.g. roofing tar).

### **CLEAN AND THIN CANOPY**

Remove dead wood greater than one inch in diameter. Prune for improved structure. Thin ends of branches by 15%. Clear from building by 3-6 feet if required.

### **CLEAN CONOPY**

Remove dead wood greater than one inch in diameter. Clear from utility lines by 2-4 feet or as far as practical. Raise to 14 feet over roads and 8 feet over walkways.

#### Clearance Prune

Pruning limbs to provide clearance for sidewalks, streets, structures or other objects. Clear from building by 3-6 feet if required.

### **CROWN REDUCTION**

Reduce the crown by 25% to shape. Remove dead wood greater than one inch in diameter. Clear from buildings by 3-6 feet if required. Raise to 14 feet over roads and 8 feet over turf if required. Clear from utility lines by 1-3 feet if required.

### **Crown Restoration Pruning**

Crown Restoration description:

This tree has been pollarded in the past. The growth that results from this practice is from adventitious or latent buds found just beneath the bark. They are not as securely attached as the original branch architecture and are prone to failure. Crown restoration pruning is the best way to gradually train these sprouts into more securely attached branches. This consists of removing the smaller sprouts, retaining the larger ones, reducing the number of sprouts that arise from a common area or growth point, and length reduction of the sprouts to be retained. It does not appear that your tree has been pollarded recently, but I still feel it could benefit from crown restoration pruning. It should help minimize the limb failure potential in your tree.

#### **DIRECTIONAL PRUNING**

Prune to establish future growth to a more structural direction or do direct future growth away from buildings, utility lines, or objects.

### DISPOSE OF EXISTING DEBRIS

#### CHIP AND HAUL AWAY GREEN WASTE OR HAUL AWAY TRASH

# Emergency tree service

Provide men and equipment on a time and material basis to make trees safe.

# End Weight Reduction Pruning

Reduce by 25% and thin has practical.

### Eradicative pruning

Remove infected tissue as far below point of fungal infection as practical. Remove dead wood greater than one inch in diameter. Clear from buildings by 3-6 feet.

# Espalier

Train tree along trellis or wall to maintain a flattened form.

# **Exploratory Trenching with Air Spade**

Excavate the soil in the problem area with an Air Knife to the depth and width specified to expose the concrete, stem wall, or area in question. Examine the area for signs of root damage. Evaluate the extent of the damage, if any. Make recommendations for further care based on observations made during the excavation.

# Fall Systemic Treatment (MF)

A systemic soil treatment to help suppress aphids, plant bugs, leaf hoppers, soft scales and some beetles.

### Fertilization

Fertilize with 150 gallons GreenBelt 22-14-14 at 300 PSI on 18 inch centers beneath the dripline of the tree at \$2.00 per gallon. GreenBelt includes a special blend of slow release macro and micro nutrients, humic acid, a wetting agent, and soluble iron. Material is deep root injected throughout the root zone to improve soil and tree health.

### FireBlight Treatment

Treat Pear for Fireblight with MycoJect Ultra (4.3% Oxytetracycline Hydrochloride) at labeled rates via trunk injection in late February to early March. Expect to get 6-8 months control of symptoms. Treatment is most effective when paired with eradicative pruning to remove infected tissue prior to application. (Most common on PEAR trees)

### Florel Treatment

Treat trees with a foliar application of Florel to suppress flowers or nuisance fruit in trees such as Olives, Liquidambar, and Oak.

### Forest Stand Improvement

Selectively remove invasive/undesirable species. Prune to improve stand structure and clearance. (when invasive trees are growing around "important" trees that are causing trees to grow improperly. Most common invasive trees are Bay Loral, Privets, and Tree of heaven aka Ailanthus tree)

# Fruit and Flower Suppression

Treat Liquidambar with Florel during tree flowering stage to suppress fruit (spiky ball) production

# Fruit Tree Pruning

Prune to reduce the weight and length of heavy branches. Promote proper fruit tree growth habit per species. Make thinning cuts to reduce crown by 25%. Control fruit production by leaving 3-7 groups of buds on fruiting wood.

### Fungicide Treatment for Anthracnose

Treat for Anthracnose with Agri-Fos delivered at labeled rates.

### **Growth Regulator**

Apply a systemic soil treatment of Paclobutrazol to slow growth on this plant. It will deepen leaf color, shorten inter-nodal spaces, and allow the tree to build carbohydrate reserves as it recovers from development impacts or other stresses. This treatment is generally effective for 3 growing seasons.

# Haul Stump Grindings

Haul excess stump grindings to 3-4 inches above surrounding soil elevation and dispose of off-site.

# Herbicide Application

Round up.

Insecticide Application

### Irrigation Installation

Install bubbler irrigation to installed trees.(drip system)

### Irrigation Management

For newly installed or transplanted trees, install Irrometer or Watermark Soil Moisture meter to monitor available moisture. Monitor soil moisture weekly until an irrigation baseline by volume has been established. Monitor on an as required basis moving forward.

#### IVY REMOVAL

Remove Ivy to one or two inches below grade only

# LAWN REMOVAL & REPLACEMENT

Remove existing turf. Amend, remove rocks, and grade soil as required. Install new sod of a species to be determined. Inspect and evaluate existing below surface drains, if any.

#### Oak worm/Tussock Moth Control Treatment

If worms are present, apply Ace-Jet first via trunk injection and then with Tree-Age in the same injection site the same day. Should provide two years of control.

# Open Tree Well City SAN JOSE CA Planting

Planting new trees in the park strip between the sidewalk and the curb and gutter require planting permits from the City of San Jose Department of Transportation. They

are available free of charge by calling them at 408 794-1901. The City will determine the planting location and species of tree to be planted, generally in a 15 gallon container. Trees will be planted according to ANSI A300 standards at \$300 each for a 15 gallon tree. They will be staked and mulched as appropriate. Aftercare is the responsibility of the property owner to ensure survival and plant survival is not guaranteed as part of this proposal.

#### PALM DEBRIS

Haul off-site and dispose of Palm debris in Landfill.

#### PALM DEBRIS 2

Place fronds in street for City pick-up, Or large container.(usually requires chopping to fit in or for city required length)

#### Palm Fertilization

Fertilize 7 Date Palms with 50 gallons each liquid fertilizer containing the labeled amounts of each of the following 4 liquid fertilizers: 5% Magnesium Chelate; 5 % Manganese Chelate; Essential Organic Liquid Soil Amendment, and Palm Pro 12-4-12. Material to be delivered at 300 lbs per square inch of pressure on 18 inch centers at \$2.25 per gallon. Treat in March 2014 at \$787.50 per treatment.

# Palm prune

Remove dead fronds. Raise live fronds to approximately a ninety degree angle, or parallel to the ground. Remove flower stalks and seed pods.

### Palm Prune, Slick Trunk

Remove old frond bases as far up the trunk as practical. Shape pineapple bowl beneath frond head.

### PALM TREATMENT

Treat **Phoenix canariensis** with Cleary's 3336 for Gliocladium at \$120 each in March and April 2014. Cost will be \$360 per application.

### **Permit Acquisition**

Obtain and acquire all necessary and required permits and approvals to trim or Remove tree(s)

### PEACH TREE BORER

Perform a trunk and basal spray application to help suppress peach tree borer.

#### PLANTING

Supply and install a 24 inch boxed replacement tree of a species to be determined. Trees will be planted according to ANSI A300 standards. They will be staked and mulched as appropriate. Aftercare is the responsibility of the property owner to ensure survival and plant survival is not guaranteed as part of this proposal.

### Radial Trenching

Create pathways for root growth using an Air Knife. Install trenches 6-8 inches wide by 8-10 inches deep in a radial fashion spreading out from the tree trunk. Be careful to minimize disturbance of existing roots. Back fill trenches with a mixture of compost and fir bark. Irrigate as required subsequent to installation.

#### **REJUVENATION PRUNE**

Thin and reduce old and declining stems to promote development of new vigorous growth, removing approximately 1/3 of growth.

# REMOVE TREE(S)

Safely remove the tree(s) as close to grade level as practical. Remove resulting debris.

### **REMOVE STUMP**

Grind stump 12-18 inches below grade level or as much practical. We will grind surface roots visible only. Use resulting debris for back fill, and spread excess debris adjacent to stumps.

### Report Writing

Make site visit, evaluate tree(s) condition, take photos, measure trees and create plot plan perform TRAQ assessment if required. Present findings in written format.(\$200 HOUR /ONE HOUR MIN BY CERTIFIED ARBORITS)

# **Permit Acquisition**

Obtain and acquire all necessary and required permits and approvals to trim or Remove tree(s)

#### Root Collar Excavation

Excavate the soil at the base of the tree with an Air Knife to expose the root flare and any girdling roots. Examine the root flare for signs of decay that may impact structural stability. Evaluate the extent of the damage, if any. Make recommendations for further care based on observations made during the RCE.

# **ROOT PRUNING**

Dig and clean cut roots that are growing towards foundations, buildings or fences.(can put 18 "ROOT BARRIER)

#### Root Zone Remediation

Cultivate and amend the soil of the tree to a depth of 8 inches utilizing an air spade. Incorporate organic matter and soil nutrients as prescribed in the soil analysis report. Supply and deliver compost to cover treated area to a depth of 3-4 inches. Supply and deliver 3-4 inches of wood chips to be installed over compost.

### Twelve Inch Root Barrier

Install 12 inch deep root barrier against pavement at \$25 per lineal foot. Leave barrier one inch above grade to prevent root growth over barrier if it will not present a tripping hazard.

### 18 INCH ROOT BARRIER

Install 18 inch deep root barrier against pavement at \$30 per lineal foot. Leave barrier one inch above grade to prevent root growth over barrier if it will not present a tripping hazard.

### Root Zone Remediation in turf.

Cultivate and amend the bare soil beneath the tree to a depth of 8 inches utilizing an air spade. In turf environments, create 8 inch wide by 6-8 inch deep trenches in turf. Incorporate organic matter and soil nutrients as prescribed in the soil analysis report. Leave the treated area covered in mulch or wood chips. Apply grass seed if required in turf environments. The tree will need to be watered prior to performing this service and on a regular basis after treatment.

# Safari Trunk Treatment (ST)

Treat with a lower trunk application of Safari and PentraBark (an adjuvent for material uptake) to suppress aphids, scales, leaf hoppers, plant bugs, leaf beetles and leaf miners.

# Shape and Balance

Generally for smaller trees and shrubs, this service provides height and canopy spread reduction by 25% to a symmetrical shape.

# Soil Sample

Take soil samples from at least two depths per location, one 2-3 inches below grade, one 10-12 inches below grade, one 24 inches below grade (if required). Send samples to Perry Labs in Watsonville for analysis.

#### Street Tree Prune

Raise to City of San Jose specifications for tree canopy height of 14 feet over street and 8 feet over sidewalk. Prune for improved structure. Remove dead wood greater than one inch in diameter. Reduce lateral branch length by 25% as required. City owned trees (those in the park strip between the sidewalk and the curb and gutter) require pruning or tree removal permits from the City of San Jose Department of Transportation. They are available free of charge by calling them at 408 794-1901.

### Street Removal

Safely remove the tree(s) as close to grade level a practical. Remove resulting debris City owned trees (those in the park strip between the sidewalk and the curb and gutter) require tree removal permits from the City of San Jose Department of Transportation. They are available free of charge by calling them at 408 794-1901.

# Structural Prune (STP)

Structural pruning specification: Prune for improved structure. Subordinate branches identified as being "temporary" by 40% - 50% to keep diameters small. Eliminate codominant leaders. Where several limbs arise from the same area, choose the best 2 or 3 to retain. Establish appropriate spacing of scaffold branches. Be mindful of creating the correct aspect ratio of lateral growth to parent stem growth (laterals should be 50% or less than the parent stem diameter). Establish apical dominance and proper aspect ratio by subordinating limbs to be retained by 25% - 30%. Raise over roadways to a height of 14 feet. Clear from buildings by 3-6 feet.

# **Subordination Pruning**

Usually for trees with large co-dominant attachments, subordination pruning focuses on reducing branch length and canopy mass on the stem intended to be subordinate by 30%. This limits growth of this stem and allows the stem intended to be dominant to increase caliper and thus begin to form a more correct aspect ratio. This pruning also includes removal of dead wood greater than one inch in diameter, canopy elevation to an appropriate height, and building and utility line clearance if required. TOP OFF TREE(S)

Top off trees to reduce possibilities of limbs snaping off due to winds of end weight.

# **Transplanting**

Excavate root crown with Air Knife to expose feeder and anchorage roots. Retain as much feeder root and soil mass as possible. Sever anchorage roots with a sharp instrument taking care not to tear or shatter root tissue. Prepare new planting site to accept exposed root mass with adequate room for new root growth. Lift tree out of planting site and move to new location. Guy tree in new location if required.

Wood disposal

Haul large log sections to recycling station for disposal