# **TECHNICAL SPECIFICATIONS**

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## 1. Scope

This Work shall consist of furnishing all labor, equipment, and material necessary for Line Clearance and Right of Way Mowing of all designated JEA electric, water, and wastewater facilities, in accordance with the requirements of this specification. The location of the Work shall be any job site within the boundaries of JEA's service territory. This includes, but is not limited to, urban, suburban, and rural environments, work within the travel way of single and multi-lane roadways, wooded rights-of-way, plants (power, water, wastewater), electric substations, lift stations, well sites, timberland, and near commercial and industrial facilities. No minimum quantities are guaranteed. JEA estimates a total of 3,020 miles per 2.5 year cycle or roughly 1,200 miles per year. The territory is broken up into 3 districts with each district having about 400 miles. Each district will have roughly 100 miles per quarter to complete. The districts will be completed simultaneously requiring the Contractor to have a group of crews in each district at all times. Each district shall have a dedicated General Foreman responsible for Firm crews and their work (three GF's). Any Firm work scheduled within a quarter should be completed in that quarter. Any carryover work not completed within the following quarter will be subject to liquidated damages of \$500 per day per circuit until the work is completed and verified complete by JEA.

#### 2. General Intent

This contract is intended to utilize a contractor to perform all needed activities to support JEA's Forestry Department in line clearance and right of way maintenance. Line clearance and right of way maintenance is performed to facilitate the installation of new facilities or improvements to existing facilities; to trim or remove those limbs, trees, brush that have become a menace to public safety or service and to maintain minimum clearances on electrical or other facilities. All work shall be done in a safe and professional manner so as to render a neat and uniform appearance. Approval of work shall be to the satisfaction of the State of Florida's Department of Transportation, the City of Jacksonville, and other applicable municipalities, and JEA's Representative.

#### 3. Caution Around Utility Lines

Contractor shall exercise extreme care when cutting brush or trees that are close to or touching wires to prevent breaking or wrapping the wires together or otherwise interrupting service to JEA or damaging other utility cable or facility. If any such trouble should result, JEA shall be notified of the location of such trouble as quickly as possible. An incident report shall be filled out for any such occurrence and sent to JEA's Representative within 24 hours.

#### 4. Character of Workers

All workers employed by the Contractor shall be experienced in and capable of performing assigned work. At any time a worker exhibits inadequate experience, judgement, physical inability, or poor communication skills to safely perform assigned work; JEA reserves the right to cease/halt such assigned Work until the problem is rectified to the satisfaction of JEA.

#### 5. Work Instructions

Contractor shall maintain qualified personnel capable of reading and working from job prints, circuit maps and job reports to identify required work assignments. Job prints are a plan view

of the entire job showing the expected size and placement of new poles, primary and secondary conductor, transformers, service drops, etc. for which tree trimming is required. All circuit trimming shall begin at the substation or other designated starting point and continues to the end of the circuit as defined by the circuit map or designated stopping point. Job reports are database generated trouble tickets that identify trimming needs.

#### 6. Additional Specifications

The latest rules and regulations of the following organizations shall be considered a part of these specifications, and all work done shall be done in strict accordance with applicable provisions thereof:

- ANSI A300
- ANSI Z133
- FDOT Maintenance of Traffic
- JEA Safe Work Practices Manual
- Line Clearance Certified Contractor
- Local tree/ landscape ordinances
- National Electric Code
- National Electric Safety Code
- OSHA
- Applicable regulations of federal, state and local Environmental Protections/Control Agencies.

Contractor shall keep a current log for all employee training, qualifications, tenure, contract classification and, upon demand, furnish that log for JEA review.

#### 7. Tree Trimming

#### 7.1 Trimming

- 7.1.1. All Work performed shall be in accordance with ANSI Standards for Utility Trimming/Removal, as permitted by Duval, Clay, Nassau, and St. Johns Counties, and applicable municipalities.
- 7.1.2. Trimming in public and/or JEA right-of-ways will be performed as required for the installation of JEA facilities, improvements to existing facilities and to maintain proper clearance on existing JEA facilities. Each circuit is a stand-alone circuit. If a Transmission Line Circuit is over-built a Distribution Line Circuit then only that Distribution circuit is trimmed and billed. If a Distribution Line Circuit is over-built another Distribution Line Circuit then both Distribution Line Circuits will be trimmed and billed as one.
- 7.1.3. Trimming/Removal on private property will also be performed for the purposes outlined above but only as directed by the assigned Forester or Arborist.
- 7.1.4. Where trimming is required as a public safety and service measure, every reasonable effort should be made to limit and restrict such trimming to only what is necessary in order to mitigate the hazard and restore service. (Example: storm situation road access)

- 7.1.5. All trimming, both initial and subsequent trimming, shall be done in accordance with the best recognized and approved principles of utility arboriculture with emphasis on current tree health, customer concerns and electric reliability.
- 7.1.6. Branches or limbs should be trimmed so as to leave the branch collar intact to allow for more rapid closure of the wound. When only a portion of a limb is to be removed, the portion removed shall be cut back flush to a limb at least one-third (1/3) the diameter of the portion removed.
- 7.1.7. All Circuit trimming will be done with pole-saw and/or chainsaw. Circle saws are to be used only in storm situations.
- 7.1.8. The final decision as to the extent of trimming shall be left to the discretion of JEA's Representative.
- 7.1.9 Work not performed to specifications by FIRM (Cost/Mile) or Unit (T&M) crews shall be corrected at the Contractor's expense within fourteen (14) calendar days of receiving written notice from any JEA representative. Corrections not completed to JEA satisfaction within 14 days will be subject to liquidated damages in the amount of \$100.00 for each day until the issue is corrected
- 7.2 Every effort shall be made to regain and/or improve the quality of clearance obtained from the last time the Facilities were trimmed Minimum clearances shall be as follows:
  - 7.2.1 Transmission (69kv, 138kv, and 230kv) minimum clearance at the time of trimming should be 15 feet or to the right of way edge as designated by the JEA representative.
  - 7.2.2 Primary (4kv, 13kv, and 26kv) minimum clearance at the time of trimming should generally be 10 feet, but will ultimately be determined by the site. Vegetation species, age, location, growth direction, environmental site conditions, and the best recognized and approved principles of utility arboriculture will be considered in the final determination. Pruning cuts should be made to encourage future directional growth away from conductors.
  - 7.2.3 Open Wire Secondary (pole to pole, pole to customer, and street light circuit) minimum clearance at the time of trimming should generally be 3 feet, but will ultimately be determined by the site. Vegetation species, age, location, growth direction, environmental site conditions, and the best recognized and approved principles of utility arboriculture will be considered in the final determination. Pruning cuts should be made to encourage future directional growth away from conductors.
  - 7.2.4 Insulated Secondary (pole to pole, pole to customer, and street light circuit) trimming should be done in order to eliminate contact. Crew personnel should avoid contact with these secondary lines. Pruning cuts should be made to encourage future directional growth away from conductors. Limbs or branches between 1" and 4" diameter at the point of contact should be removed by Firm crews during routine

cycle trimming. Limbs, branches, or trees larger than 4" will be left for T&M Unit crews. The JEA representative will determine if T&M Unit crews will address these locations or if other options should be recommended to engineering or the property owner.

- 7.3 Maximum clearances shall be consistent with good economy and due regard to the rights and interest of property owners and the public. Note: Some circuits have had extra trimming to allow for greater clearances. All circuits should at a minimum; be trimmed back to the last point of trimming.
- 7.4 Notification and/or permission to proceed:
  - 7.4.1 Contractor shall attempt to notify each property of intent to trim. Further, for all homes and businesses not directly contacted, the Contractor shall leave written notification (door hanger notice-JEA-supplied) of their intent to perform required trimming at least three days prior to the work being performed. This notice shall include a telephone number for customer inquiries. Supervisors shall respond to all customer calls on a daily basis. It is Contractor's responsibility to have a person available in the "satellite office" to answer all customer calls. Contractor's Supervisors are responsible for the notification process and will verify all inquiries before trimming starts.
  - 7.4.2 JEA's representative or Supervisor will attempt to notify each property on all ticket/print work. This notification will be accomplished either verbally or by way of written notice (door hanger). However, if unavailable, the crews shall be responsible for the notification and confirmation with the JEA representative. Notification will be logged by date, time, and address.
  - 7.4.3 Trim Refusals If the Crew Leader is refused permission to obtain the necessary clearances, the crew leader is to notify the immediate Supervisor. If the Supervisor cannot secure permission, the Supervisor is to notify the JEA Representative that same day for further instructions.
- 7.5 The terms and provisions outlined above shall apply to all public and private property trees located within the City of Jacksonville or other appropriate governmental entity and shall be expressly followed by JEA except during the period of an emergency such as a hurricane, tropical storm, severe thunderstorm, flood or any other act of God; at which time the above terms and provisions will be temporarily waived so that they will in no way hamper private or public work to restore order and/or service to the community.
- 7.6 Supervisors are responsible for keeping all circuit maps as required by crews updated. T&M crews will be required to keep circuit maps marked to reflect Work progress and record date/time completed for other work. The crew leader/supervisor shall keep circuit maps marked for the circuit trimming crews on a daily basis.

- 7.7 When trimming on designated circuits, Contractor shall provide clearance for all conductors (including, primary, secondary, services and street light wires) and JEA structures (poles, guys, switches) with appropriate access to said structures.
- 7.8 All mechanically operated electrical devices shall be cleared of vegetation from ground to sky to ensure personnel can safely operate the device from the ground position. Mechanically operated electrical devices include, but are not limited to, transformers, fuses, switches, capacitor banks, reclosers, etc.
- 7.9 Every effort shall be made to clear poles of any and all vegetation for a radius of five (5) feet. Sound judgement must be utilized based on species, size, landscape design, and other customer or environmental concerns.

7.10

#### 8 Tree Removal

Identification of suspect trees:

- 8.1 All work performed shall be in accordance with the Annual Tree Trimming and Removal Permit for JEA Utilities granted by the City of Jacksonville. All work performed outside the territorial boundaries of Duval County shall conform to all existing laws and ordinances under appropriate permits for Clay, Nassau and St. Johns counties. Copies of permits are available upon request. All work performed shall be in accordance with ANSI Standards for Utility Trimming/Removal (ANZI 300 part 7).
- 8.2 Trees six inches or less at diameter breast height will not be considered as an individual removal but as just part of the circuit trimming. JEA intends to accomplish some of the live tree removal work above six inches in conjunction with circuit trimming; however, these larger removals will not affect the trimming costs for bid price comparisons of the circuit.
- 8.3 Every reasonable effort will be made to save and preserve all trees unless a thorough investigation, appraisal and JEA approval of the situation indicates that:
  - 8.3.1. The tree is diseased or damaged to such an extent that it cannot be treated and thereby preserved for any reasonable period of time.
  - 8.3.2. The type of tree and its location or growth pattern is such that it represents a real hazard from a public safety standpoint.
  - 8.3.3. Trimming that is necessary to remove the hazard would leave the tree in such condition that it would have no chance for survival and future development.
  - 8.3.4. Leaning trees The tree has such a lean toward the right-of-way that it cannot be trimmed without removing the tops and slanting the tree back.
  - 8.3.5. The tree is dead or dying:
    - 8.3.5.1. Dead/dying trees may be part of the normal distribution cycle trimming (not T&M) in certain situations.

- 8.3.5.2. All dead or dying trees along the natural large tree edge that can hit the conductor shall be removed.
- 8.3.5.3. Dead or dying trees behind the natural large tree edge will be removed depending on the following conditions:
  - 8.3.5.3.1. height of tree
  - 8.3.5.3.2. direction of prevailing winds
  - 8.3.5.3.3. topography of the land
  - 8.3.5.3.4. direction of the lean
- 8.3.5.4. Trees, shrubs and/or vines cut all vines at base of pole(s) or guy wire(s), and spray with an approved cut stump herbicide.
- 8.3.5.5. Suspect trees All tree removal is subject to the above criteria. However, with the trees above six inches DBH, JEA's representative shall be notified before removal begins, and will make the final decision as to the removal of such trees. In many instances only an assist to the customer is all that will be offered. Assisting involves the additional trimming necessary to make it safe for a private tree contractor to remove without coming within 10' of the conductors, or the topping below the conductor to remove the hazard to the conductor.
- 8.3.6. Stumps Stumps should be cut to ground level. At JEA's direction or property owner's request, the stump/roots may be cut/ground 6 inches below ground level.
  - 8.3.6.1. JEA intends that any stump grinding will be done by a T&M crew on an as-needed basis.
  - 8.3.6.2. If any stump cannot be ground due to access (fences, ditches, plantings, etc.), proximity to fixed improvements (fences, poles, etc.), or for any other reason, the JEA Representative will determine the amount of work necessary.

- 8.3.7. Any crew involved in removing trees shall have a one gallon pump sprayer of a cut stump herbicide. This is to insure that all non-ground stumps and exposed roots are treated as soon as they are cut. Contractor will be required to maintain a one-gallon pump-up sprayer for all crews involved with tree/brush removal. Each crew Foreman is encouraged to obtain a Commercial Applicator License for category 6 (Right of Way). Crews that do not have a pesticide applicator license will operate under their General Foreman's license, or other designated contract company personnel..
- 8.3.8. Roadside: As Designated by JEA's Representative Remove, as permissible, all 6 inch or less diameter at breast height (DBH) quick-growing trees, weed-type trees, trees growing as sprouts from stumps, trees which cannot be professionally maintained under JEA's facilities, fence-row trees, roadside trees adjoining agricultural and wooded lands and trees originating beside pole butts.
- 8.3.9. Off-Road: as designated by the JEA Representative Remove, as permissible, all tree species growing under JEA's facilities that run off-road where access by a conventional lift truck is not possible.

The scope of this ground line clearance is defined as: (1) removal of designated trees a minimum horizontal distance of 10 feet from outermost conductor(s) on pole, or (2) to the original old tree edge, whichever provides the greater clearance.

- 8.3.10. Any woody shrub/tree that will not reach the ten (10) foot trim zone at mature height, may be left uncut unless otherwise directed by the JEA Representative or adjacent property owner. Examples of these are varieties of Wax Myrtle, Crepe Myrtle, Palmetto, Gallberry, and Saltbush.
- 8.4. Large Tree Removal

- 8.4.1. In Public Right-Of-Way: The JEA Representative or Contractor will attempt to notify each property contiguous to the work to be performed of intent to trim/remove trees as required. Further, for all homes and businesses not directly contacted, the JEA Representative or Contractor will leave written notification supplied by JEA (door hanger notice) of their intent to trim/remove trees as required at least three days prior to the work being performed. This notice will include monitored telephone number for customer inquiry for the same.
- 8.4.2. On Private Property: The JEA Representative or Contractor will attempt to notify each property contiguous to the work to be performed of intent to trim/remove trees as required. The Contractor should obtain written permission to remove trees from property owners prior to commencement of work. Further, for all homes and businesses not notified in person, the JEA Representative or Contractor shall leave written notification (door hanger notice) of their intent to trim/remove trees as required at least three days prior to the work being performed. This notice shall include monitored telephone number for customer inquiry for the same.
- 8.5. The terms and provisions outlined above shall apply to all public and private trees within the JEA Service Territory and shall be expressly followed by the Contractor. Exceptions are during the period of an emergency such as a hurricane, tropical storm, severe thunderstorm, flood, imminent threat or any other act of God; at which time the above terms and provisions will be temporarily waived, so that they will in no way hamper private or public work to restore order and/or service to the community.

#### 9. Right of Way Mowing

9.1. On JEA right of ways, the contractor is to perform mowing as required to a line drawn vertically at the outer boundary line of the subject right of way or to the big tree line if this is reached before the boundary line. This right is subject to any assigned deed or easement restrictions and City or State laws. It includes mowing, and/or removal of grass, brush, weeds, trees, etc.

#### 9.2. Mowing/Cutting

9.2.1. Transmission line corridors shall be mowed or cut from substation to substation and tree line to tree line, unless otherwise designated. All swamps, low areas, ditches, cross fences, etc. which cannot be

- mowed with a tractor must be cut either by hand or other mechanical means, unless otherwise designated. In areas where feasible, all cut stumps must be treated with an approved herbicide.
- 9.2.2. All vegetation including but not limited to trees, underbrush, weeds, grass, etc. shall be cut at ground line (or water line in areas where there is standing water). Maximum height for stubble immediately after cutting shall be four inches (4").
- 9.2.3. Unless otherwise specified all JEA right of ways shall be maintained as outlined above. It must be understood that these guidelines are the optimum possible and are subject to the availability of funds.
- 9.3. The JEA Field Representative shall be responsible to establish right of way clearance and/or maintenance priorities and to specify any exceptions to the above guidelines.
- 9.4. Where moving or trimming includes Wild Cherry (*Prunus serotina*) every precaution shall be taken to eliminate the possibility of livestock being poisoned by eating such brush or leaves.
- 9.5. Certain transmission structures are within fenced enclosures for security reasons. The area inside fenced enclosures shall be moved or cleared as part of the R/W moving contract, and the fence line shall be trimmed inside and outside.
- 9.6. Right of Way Maps The Right of Way maps are a plan view of the entire job showing the size and placement of poles, cross fences, and right of way boundaries for which mowing is required.
  - 9.7. Security Due to the importance of the transmission line facilities to the JEA's transmission and distribution system, it is of the utmost importance that a high degree of security be maintained. All gates shall be locked upon entering and leaving a transmission line right of way. Any unauthorized activity shall be reported to the JEA Representative. Due to the fact that most of the JEA's easements are on private property it is very important that customer satisfaction be maintained during all aspects of the right of way maintenance.

## 10. Chemical Brush Control

10.1. The chemicals and chemical mixtures used shall be as approved, directed, and reimbursed by JEA. The Contractor shall be responsible for transporting and storing unless otherwise directed by JEA. The Contractor shall furnish personnel qualified by State regulatory agencies to handle and apply chemical. The

- Contractor shall have a staff or qualified personnel to answer any technical questions regarding the type and use of chemicals. All herbicide application and mixtures shall be in compliance with herbicide labels.
- 10.2. Adequate precautions shall be taken to safeguard people, livestock, pets, wild birds, and animals when performing chemical brush control of any type. The Contractor shall cooperate with all public agencies and organizations interested in or affected by the chemical brush control program. Any equipment failure or other problems which results in temporary work stoppage shall be considered non-billable time. The standard methods of application for chemical brush control are:
  - 10.2.1. (A) Foliage, (B) Basal, and (C) Stump.
- 10.3. The following general specifications apply to foliage applications:
  - 10.3.1. The brush sprayed shall be over three feet (3') but shall not exceed an average of eight feet (8') in height unless directed otherwise by JEA.
  - 10.3.2. The chemical mixture shall be applied so as to completely wet the entire leaf, stem, and trunk surfaces of each plant to the point of runoff. To insure proper coverage, spray operators shall not ride the spray unit but shall walk the right-of-way while spraying.
  - 10.3.3. Foliage spray shall not be applied within thirty minutes after a fog, dew or rain that is heavy enough to cause run-off of water on the leaves of the plant.
  - 10.3.4. The Contractor shall have the right to skip any portion of a line when in its opinion damage to crops, orchards or ornamental plantings may result from drifting or volatility. Contractor will notify the appropriate JEA representative of these locations.
- 10.4. The following general specifications apply to basal application:
  - 10.4.1. Basal application may be applied at any time of the year as directed by JEA.
  - 10.4.2. The chemical mixture shall not be applied when the stem and trunk are wet from fog, dew, or rain.
  - 10.4.3. The chemical mixture shall be applied to the stems and trunk so as to wet the entire surface of the stems of trunk from root crown up to the stem 18 inches. The chemical mixture shall be applied in sufficient volume to cause run-down on the stem or trunk to the root crown.
  - 10.4.5. The Contractor shall have the right to skip any portion of a line when in its opinion damage to crops, orchards or ornamental planting may result from drift or volatility.
- 10.5. The following general specifications apply to stump application:
  - 10.5.1. Stump application may be applied at any time of the year as directed by JEA.
  - 10.5.2. The chemical mixture shall not be applied when the stumps are wet from fog, dew or rain.

- 10.5.3. The chemical mixture shall be applied to the stump so as to wet the sapwood, the bark area, root crown and any exposed roots. The chemical mixture shall be applied in sufficient volume to cause rundown of the mixture to the root crown.
- 10.5.4. Stumps shall be sprayed as soon as possible after cutting. Cut brush and debris shall be removed so as to expose all stumps and rubble.
- 10.5.5. All stumps and stubble visible to the eye shall be treated.
- 10.5.6. The Contractor shall have the right to skip any portion of a line when in its opinion damage to crops, orchards or ornamental plantings may result from drift or volatility.

## 11. Disposition of Brush and Debris

- 11.1. Brush and debris shall be handled in such a manner as to avoid obstructing roads, paths, or waterways. Any burning must be done with the approval of local air pollution authorities, Fire Marshall, or Division of Forestry. Any dumping in excessive amounts shall require a City Permit to Landfill that the landowner is responsible for obtaining.
- 11.2. Individual requests by property owners for special handling of brush/wood shall be granted where reasonable. If any doubt exists as to the action to be taken, the request shall be referred to the JEA Representative for instructions.
- 11.3. The Contractor is responsible for disposing of all chips, wood, etc. JEA may negotiate a location for disposal of said debris other than on JEA property. The Contractor shall not sell or offer for sale any material generated by any work performed on or around JEA property.

All brush, limbs, logs, etc. generated by Firm Price crews as part of routine bid mileage work shall be chipped and or removed daily. Under no circumstances shall brush be left over the weekend or overnight. JEA will impose Liquidated Damages when brush is left without customer's permission.

#### 12. Additional Personnel

- 12.1. JEA shall have the right to request Contractor to add/or reduce personnel and/or equipment of the various classifications, as it may deem necessary. JEA or its authorized representative may vary the number and classification of personnel and equipment on any crew in order that sufficient personnel and equipment shall be available to efficiently do the work covered in these specifications. The Contractor shall comply with any request within five (5) working days. Should the Contractor be unable to comply with the additional personnel/equipment request, JEA reserves the right to cancel the Contract or shift work to other contractors.
- 12.2. JEA shall give the Contractor five (5) working days written notification prior to any reduction in forces.

#### 13. Tools, Equipment and Chemicals

- 13.1. Contractor will be required to provide the necessary equipment as called for and described in Sections 14 and 15 Equipment Specifications, plus any necessary supporting tools, equipment and personnel. If any additional or special equipment, not listed in the specifications, becomes necessary, it shall be reimbursed by the JEA from the Contractor at a rate described in "L.E.M.", or purchased in whole by JEA and used by contractor until not needed; at which time it will be returned to JEA.
- 13.2. Contractor's equipment, tools and material will be subject to approval or rejection by JEA, acting through its assigned JEA Representative. NO REBUILT EQUIPMENT UNLESS APPROVED BY JEA AND CONTRACTOR AGREES TO BILLING RATE DISCOUNT.
- 13.3. T&M Crew Equipment: Chainsaws will have less than one (1) year of service. All other equipment will have less than five (5) years of service. Gas pole saw required on some unit trucks will be billed as a chainsaw, except their age limit will be three (3) years.
- 13.4. Firm Price Crew Equipment: Chainsaws will have less than three (3) years of service. All other equipment will have less than seven (7) years of service.
- 13.5. All billable equipment and other equipment with age limits will be required to have a unit number assigned and engraved on unit. This will include chainsaws and other small units so as an in-service data can be established. This unit number shall be reported on timesheets. Contractor will supply JEA a list of all current personnel on JEA System and equipment with date of in service on the 1<sup>st</sup> day of each month.
- 13.6. Disc chipper, minimum 80 hp diesel, on all T&M crews.
- 13.7. All Firm Price Aerial Units will be a minimum of 55' platform height. NO 50' Aerial Units on JEA System. Each Firm Price trimming group is required to have at least one 60-70 aerial unit. Example: If one group is working Northside and one working Southside, then each area group will have a 60-70 aerial unit.
- 13.8. The equipment of the Contractor shall be kept in neat appearance and in good operating condition at all times.
- 13.9. Tools shall be kept sharp and in good working order. All scheduled and unscheduled equipment maintenance/inspection work shall not be billable to JEA. All T&M Crew downtime will be scheduled with the JEA Representative.
- 13.10. The Contractor's equipment shall meet all safety requirements and insulating values of OSHA, ANSI or other state or federal agencies. All equipment booms, bucket/bucket liners etc shall be tested yearly to insure the rated insulating value is upheld.
- 13.11. Adequate first aid supplies and work traffic signs shall be a part of the standard equipment of all vehicles.

- 13.12. All equipment with a drive train will have mud-grip or cleated tires on all axles that provide pulling power.
- 13.13. Each crew will have a working cell phone. These phones will be "Smart Phones" with data capability to be approved by JEA.

## 14. Crew Type Definitions

- 14.1. Crew types shall be established using personnel and equipment as listed below; however, lower or upper classifications may be utilized with the approval of JEA Representatives
- 14.2. The following is an estimated list of the crew types and the required personnel and equipment.
- A. Distribution Trim Crew (overhang / capital)

(6–Crews)

- 1 Crew Leader
- 2 Assistants (as designated)
- 1 60/70 Aerial Lift
- 1 Chipper Unit
- 2 Chain Saws (1 medium and 1 small)
- 1 Pole Saw
- 1 Leaf Blower
- 2 Sets climbing gear
- B. Ticket Crew (Transmission and Distribution)

(4– Crews)

- 1 Crew Leader
- 1 Assistants (as designated)
- 1 60/70 Aerial Lift
- 1 Chipper Unit (Large)
- 3 Chain Saws (1 large, 1 medium and 1 small)
- 1 Pole Saw
- 1 Leaf Blower
- 2 Sets climbing gear

#### C. Transmission Trim Crew

(2- Crews)

- 1 Crew Leader
- 2 Assistants (as designated)
- 1 60/70 Aerial Lift 4X4, with winch
- 1 Chipper Unit
- 3 Chain Saws (1 large, 1 medium and 1 small)
- 2 or more Sets climbing gear
- 1 Leaf Blower

# D. Climbing Crew

(1- Crew)

- 1 Crew Leader (Climbing)
- 3-4 Assistants (as designated) (Climbers. No more than 1 GM)
- 1 Split Dump Crew Cab 4-door

- 1 Chipper Unit
- 4 Chain Saws (1 for each person and 1 spare. At least 1 large, 1 medium and 2 small saws.)
- 1 Leaf Blower

#### E. Jarraff Crew

(0- Crew)

- 1 Crew Leader
- 2-3 Assistants (as designated)
- 1 Jarraff or equivalent
- 1 Split Dump
- 1 Chipper Unit
- 2 Chain Saws (medium)
- 2 Sets climbing gear

#### F. Tractor Crew (Distribution)

(1- Crews)

- 1 Crew Leader
- 1 Assistants (as designated)
- 1 4X4 Tractor with Transporter
- 1 Chain Saw (medium)

## G. General Purpose Crew

(1- Crew)

- 1 Crew Leader
- 1 Assistant
- 1 Blower
- 1 Grapple loader
- $1-4 \times 4 \%$  ton truck
- 1 Stump Grinder
- 1 Large Chainsaw
- 1 Dump Trailer

## H. Supervisor Crew

(3- Crews)

- 1 Supervisor or Area Supervisor Will supervise all the above crews
- $1 4x4 \frac{1}{2}$  ton truck

#### I. Hand Crew

(2- Crews)

- 1 Crew Leader
- 3 4 Assistants (as designated)
- 1 Split Dump Crew Cab 4-door
- 1 Chipper Unit
- 4 Chain Saws (medium)
- 1 Leaf Blower

#### J. Vine Crew

(1- Crew)

- 1 Crew Leader
- 1 F-550 4x4 (or equivalent) 45' boom bucket with utility bed

K. Mowing (1 Crew)

- 1 Crew Leader
- 1 Assistants (as needed)
- 1 4x4 Tractor with Batwing mower
- 1 Support Truck
- 2 Weed eaters

## L. JSEB Spray Crew

(1- Crew)

- 1 Crew Leader
- 1 Assistants (as designated)
- 1 4x4 ATV with 50 gallon spray tank and trailer
- 1 4x4 \(^3\)4 ton truck with 200 gallon nurse tank
- 4 Back pack sprayer per person plus 1 spare per crew

## M. JSEB Mowing

(1 Crew)

- 1 Crew Leader
- 1 Assistants (as needed)
- 1 4x4 Tractor with Batwing mower
- 1 Support Truck
- 2 Weed eaters

#### 15. Miscellaneous Maintenance

The Contractor may be required to perform miscellaneous work such as repair or replacement of sod, topsoil, shrubbery, and tree planting during the term of this Contract. The Contractor shall be paid at the rate bid for the crew doing the work plus the reimbursement for any material furnished. Reimbursement for materials shall be the actual cost of the material to the Contractor plus 5% handling fee. Approval to furnish any material must be obtained prior to the work being performed.

#### 16. Equipment Specifications

- 16.1 60/70' AERIAL DUMP BODY UNIT (Platform Height) upper and lower boom break over center, 12 cubic yard dump body, tool compartments, mounted on 2 1/2 ton chassis, trailer hitch, bucket connections for two hydraulic tools and appropriate holders, two hydraulic tools as specified, long reach pole saw, with full complement of tools that will include 2 sets of climbing gear.
- 16.260/70 AERIAL DUMP BODY UNIT 4X4 WITH WINCH (Platform Height) upper and lower boom break over center, 12 cubic yard dump body, tool compartments, mounted on 2 1/2 ton 4X4 chassis, trailer hitch, front mounted 30,000lb winch, bucket connections for two hydraulic tools and appropriate holders, two hydraulic tools as specified, long reach pole saw, with full complement of tools that will include 2 sets of climbing gear. NOTE: NO EXCEPTIONS ON WINCH
- 16.3 60/70 AERIAL UNIT 4X4 FLATBED WITH WINCH (Platform Height) upper and lower boom break over center, tool compartments, mounted on 2 1/2 ton 4X4 chassis, trailer hitch, front mounted 30,000lb winch, bucket connections for two hydraulic tools and appropriate

- holders, two hydraulic tools as specified, long reach pole saw, with full complement of tools that will include 2 sets of climbing gear. NOTE: NO EXCEPTIONS ON WINCH
- 16.455' AERIAL DUMP BODY UNIT (Platform Height) upper and lower boom break over center, 12 cubic yard dump body, tool compartments, mounted on 2 1/2 ton chassis, trailer hitch, bucket connections for two hydraulic tools and appropriate holders, two hydraulic tools as specified, long reach pole saw, long reach circle saw, with full complement of tools.
- 16.5 SPLIT DUMP TRUCK CREW-CAB, 4-DOOR, 4x4 With Winch (Climbing Crew or Hand Crew) Crew Cab, 4-door, 12 cubic yard hydraulic dump body, trailer hitch, tool compartments mounted on 2-ton 4x4 chassis, trailer hitch, front mounted 30,000lb winch, with full complement of tools. NO DOG BOX CAB
- 16.6 SPLIT DUMP TRUCK NON-CREW CAB, 2-DOOR (Follow-up Truck) 12 cubic yard hydraulic dump body, trailer hitch, tool compartments mounted on 2-ton chassis, with full complement of tools.
- 16.7 DISC BRUSH CHIPPER 12" Cutter head minimum, trailer mounted, minimum 80 hp diesel engine, disc on ALL Unit (T&M) Crews.
- 16.8 LARGE DISC BRUSH CHIPPER 19" Cutter head capacity minimum, dual vertical roller feed, trailer mounted, minimum 110 hp diesel engine, disc on ALL Ticket Crews. (example: Vermeer BC 1800)
- 16.9 GRAPPLE LOADER / Hydraulic Dump Truck Ford F-800 or equivalent, dual rear axle, with dump body (minimum capacity twelve cubic yards), shall be fitted with a hydraulic Grapple loader (PRENTICE 2125 or larger), must be able to reach a minimum 20 ft. reach from side of truck, with full complement of tools.
- 16.10 CHAIN SAWS Chainsaws: Small = 14" bar. Medium = 20" 24" bar. Large = 28" bar. (Must maintain at least one three foot bar and chain on system).
- 16.11 Blower: Minimum 3.0 cu. in (44.0 cc), 180 MPH Velocity.
- 16.12 Gas powered pole pruner: 12' reach.
- 16.13 PICK-UP 3/4 TON, WITH STUMP GRINDER F250 Crew-Cab/Extended Cab or equivalent, 4x4, Self-Propelled "Tracked" grinder capable of cutting 12" depth and 50" width, telescoping tongue, and minimum 60-horsepower engine, with full complement of tools. (example: Vermeer SC 60), 14' seven ton scissor lift dump trailer with full coverage tarp for transporting trees, ramps and with full complement of tools.
- 16.14 PICK-UP 1/2 TON, 4x4 F150 or equivalent, 4x4, trailer hitch, equipped with full complement of tools. Each Supervisor truck will have a permanently mounted spot light. All supervisor or GF trucks will be equipped with 4 light strobe system, and a roof top mounted amber light.

- 16.15 PICK-UP 3/4 TON, 4x4, CREW CAB Skidder Support, F250 or equivalent, 4x4, trailer hitch, toolbox with hand tools
- 16.16 PICK-UP 1/2 TON,, 4x4 F150 or equivalent, 4x4, trailer hitch, toolbox, with full complement of tools.
- 16.17 TRACTOR 4X4, with transporter Minimum Ford New Holland TB 120 tractor 4x4 or approved equal with truck and/or trailer for transporting, minimum 50-gallon diesel fuel tank for fueling equipment, with full complement of tools. Front mounted winch. Each side of Bat-Wing and winch will have a dedicated hydraulic valve. (minimum 3 valves)
- 16.18 (BROWN) TREE CUTTER Heavy-duty Brown Tree Cutter, minimum 5' width.
- 16.19 BATWING MOWER Heavy-duty 15' minimum Bat-Wing mower. This mower will be equipped with airplane floatation tires
- 16.20 75' JARRAFF (or equivalent) TRACKED Mechanized trimmer mounted on tracked type vehicle or approved equal, minimum 75' cutting height, 360 degree rotation, with truck and/or trailer for transporting, contractor can pay for transportation on an as needed basis in lieu of providing the transport truck/trailer. With full complement of tools.
- 16.21 75" JARRAFF (or equivalent) RUBBER TIRED Mechanized trimmer minimum 75' cutting height, 360 degree rotation, with truck and/or trailer for transporting, contractor can pay for transportation on an as needed basis in lieu of providing the transport truck/trailer. With full complement of tools.
- 16.22 ATV Polaris Sportsman 500 (ATV) or Polaris Ranger 570 (RTV) (or Equivalent) capable of carrying personal and equipment through areas that trucks cannot reach.
- 16.23 SQUIRT BOOM Ford F-550 4x4 (or Equivalent) with 40' reach bucket and utility bed with side bins. With Full Complement of Tools.
- 16.24 BACKYARD BUCKET Tracked backyard bucket with minimum reach of 40' and trailer for transporting. With Full Complement of Tools.
- 16.25 FECON Caterpillar 299D2 XHP 106 hp Tracked Skidsteer (or Equivalent) with enclosed cab and AC with minimum 60" working width mulching head. With truck and/or trailer for transporting, contractor can pay for transportation on an as needed basis in lieu of providing the transport truck/trailer.
- 16.26 STUMP GRINDER Self-Propelled "Tracked" grinder capable of cutting 12" depth and 50" width, telescoping tongue, and minimum 60-horsepower engine, with full complement of tools. (example: Vermeer SC 60),

COMPANY SHALL PROVIDE THE FOLLOWING EQUIPMENT FOR TRADES AND CREWS FOR JEA OR TECO. EACH AGENCY MAY REQUEST A LESSER EQUIPMENT LIST.

FULL COMPLIMENT OF TOOLS - Inclusive of but not limited to manual pole-pruner and pole-saw, pole extensions, rakes, brooms, hand tools (set of wrenches, screwdrivers, vice grips, hammer), and if requested: climbing gear, which will consist of one bull and two climbing ropes, two sets of spurs, two full body harness saddles, one speed saw, two hand held and/or truck mounted spot lights for night work. If lights are hand held, they must be of a type that does not have any wiring (potential ground) from the truck to person holding the light. A working 1 gallon herbicide sprayer will be required on all tree crews (Bucket, Climbing, Hand, and Tractor) in order to spray stumps and vines. Tool holders for any tools used from bucket; this will include pole/circle saw holder and chainsaw scabbard.

STORM LIGHTS - The "On Call" General Foreman will supply a wireless remote magnetic Go Lite each week for the two "On Call" Storm Crews. These lights will be given to the crews at the beginning of the on call week before the first night.

ADDITIONAL EQUIPMENT - Any additional equipment not listed above will require a submitted specification and subsequent approval, before it can work on this Contract.

Contractor required to maintain at least two working spare chippers on system.

## 17. Management and Supervision

Contractor shall designate a solely dedicated single point of contact Account Manager, Superintendent, or Supervisor to oversee the Work as well as training and performance of General Foremen. This position will be based in Jacksonville and will only work on the JEA account unless mutually agreed by the T&D Preventative Maintenance Manager and Contractor. This will be a non-billable position.

## 18. Miscellaneous Expenses

Any miscellaneous reimbursable expenses such as materials, herbicides, equipment rentals, specialized short term services from third party vendors, and JSEB reimbursement will be paid at the bid rate supplied by the Contractor. This bid mark-up rate will be used for all mark-up eligible expenses, and will be part of the matrix used to determine the successful bidder. Reimbursement for materials or services shall be the actual cost of the material or service to the Contractor plus a fixed mark-up (this mark up will be identified in the Bid Workbook). Approval to furnish any material or services must be obtained prior to the work being performed.

## 19. Holidays

Contractor will observe and pay all T&M personnel for the following eleven JEA observed holidays:

New Years Day
Martin Luther King Jr's Birthday
President's Day
Memorial Day
Independence Day
Labor Day

Veterans Day
Thanksgiving Day
Day After Thanksgiving
Christmas Eve Day
Christmas Day

These holidays will be non-billable to JEA unless crew personnel work on the holiday.

## 20. Employee Major Medical Insurance Coverage

Contractor shall provide all employees the opportunity to purchase some type of medical insurance. Employees currently on the JEA system as of the first day of the new contract will be immediately eligible for coverage (no 90 day waiting period). If different coverage and/or costs are utilized for different supervisory levels, then the higher rates must be used for evaluation on the bid form. Example: If GF or Supervisor has a different rate than that of crew leader or climber, then the classification that has the highest rate is to be used on the Bid Form.

## 21. Working Hours

Normal working hours for this Contract will fall between 6:30 am to 5:30 pm with a one-hour non-billable lunch period, Monday through Friday, subject to change. Crews are encouraged to bring their lunch each day. Lunch period begins when the crew stops working for lunch. If the crew elects to travel for lunch; this travel time to and from is part of the lunch period. Fueling, maintenance, and inspections of all equipment is non-billable time. Any equipment failure or personnel problems which result in a temporary work stoppage of more than ½ hour shall be considered non-billable time. Prior approval by JEA's representative for make-up hours for crews that fail to obtain their forty (40) hours will be required. This schedule will become the basis for the definition of "normal working hours". Contractor's schedule shall be coordinated with and approved by JEA's representative. Contractor will not be permitted to perform T&M work on the JEA system outside of the normal working hours without prior approval of JEA's Representative.

#### 22. Overtime Work

Contractor shall base the Project scheduling time and unit prices on regular, non-overtime work. If JEA requires the Contractor to work in excess of the regular 40 hour work schedule, the Contractor will be entitled to compensation for Overtime Work in accordance with the following:

- The total compensation will be based upon the bid price of the unit price items performed to which is to be added the premium (excess payroll expense) portion only of the overtime labor hours worked by the various classifications involved.
- Discount billing rates for equipment utilized over 40 hours shall apply.
- All labor overtime will be billed at 1.5 times the pay rate then multiplied by the percent mark-up.
- Hours worked on Sunday or on Contractor observed holidays will be billed at the overtime rate of time and one half.
- Double time rates will apply for excess hours beyond 16 hours in a 24 hour period.
- Contractor recognized holidays and previously scheduled vacation days will be considered time worked as it relates to the calculation of overtime.

## A. Standby Crews

Contractor shall establish a "Standby" system whereby two fully-staffed Unit Price Bucket Crews and Supervisor will be on call 24/7 in order to be available for after hours' emergencies. Contractor will rotate the crews and supervisor that are on standby. Contractor will supply a cell

phone to all crew personnel on standby. JEA may, at any time, adjust the callout schedule to respond to any problems Contractor may have in providing crews in a timely manner. JEA will pay each crewmember and supervisor on standby at the rate of \$22.00 per day. The standby pay will be paid weekly to each crewmember and supervisor, which will be billed bi-weekly. JEA may adjust this rate at any time during the term of this contract.

Both standby crews will be fueled and all equipment shall be in working order at the end of the work day. Upon call out; the crew shall be at the first trouble call location within 90 minutes of being called. Call out overtime will begin when the crew is called, and will end when the crew is released from their assembly area.

#### **B.** Double Time

If an employee is required to work in excess of 16 hours in a 24 hour period, then all hours worked beyond 16 in the previous 24 hours shall be paid at 2 times their regular rate of pay. This rate will apply until employee is released for rest period. This section may be removed if there are any abuses to this policy.

#### C. Rest Time

An employee who has worked sixteen (16) hours or more in a twenty-four (24) hour period, or eight (8) hours or more overtime in the sixteen (16) hour period immediately preceding his/her basic workday, shall, upon release, normally be entitled to a continuous eight (8) hour rest period before returning to work. Personnel called to work overtime on Sunday is an example of eight (8) hours or more overtime in the sixteen (16) hour period immediately preceding his/her basic workday. Rest period begins upon release from the assembly area. The paid portion of this rest period will coincide with the crews' normal work hours.

All of this paid rest period will be on straight time. However, only the paid rest during scheduled hours will be considered "time worked" for Overtime Pay purposes. If the crew does return for their remaining scheduled hours; this scheduled time will be "straight time". If the crew is called back to work after this 8 hour rest period; any work time falling within their normally scheduled work day will be straight time. Any work time beyond their normally scheduled work day will be overtime.

Double time rates will apply if crew personnel are called back to work before the end of their 8 hour rest period.

No equipment is billable due to crew being on rest period. Contractor will be fully responsible to provide personnel if they desire to maintain billable time while crew(s) are on Rest Time.

## 23. Equipment Overtime Discount

A discounted rate will be used for equipment after exceeding 40 hours per week. An example of this is shown below, companies will provide their discount for Equipment over 40 hours on the Bid Workbook, A minimum of 10% discount shall be bid:

Subtotal	(.10 X)				
(B)	\$1,200,000)	X	.3648	=	\$43,776

	Subtotal (A) Section 1		% Discount		Potential Overtime Equipment Discount	
Total						
Section 1.	\$1,200,000	_	\$43,776	=	\$1,156,224	
	Subtotal Section		Potential	_		
	1.		Overtime		TOTAL SECTION 1.	
			Equipment		TOTAL SECTION 1.	
			Discount			

#### 24. Work Reports

The Contractor shall furnish the following report in an electronic format. These reports shall be computer generated and include current month and year-to-date totals. The following reports shall be required:

Weekly Time Sheets: Form 1. The Contractor's Supervisor shall turn in a weekly time sheet of all work performed, crew hours worked by construction code, circuit and crew type to JEA. Contractor shall be prepared to initiate and use an email/electronic based time sheet when JEA decides to utilize one.

A copy of each report must accompany all applications for payment and will be verified before any payments are processed. Since these reports are a valuable part of the Contract, no payment will be made until this data is provided.

## 25. Minimum Starting Pay Scale – Applies only to T&M work

(Applies only to T&M crews and billable supervisors)

Personnel shall be paid at least the minimum pay listed below based on meeting the criteria for that particular classification. Pay below the minimum scale may be allowed when disciplinary action is required. Billing shall reflect any and all changes to pay rates. All movement within a classification and from one classification to another shall have prior JEA approval. Employees will move with a natural progression through each classification. Skipping steps from within a classification will not be allowed. Mark-up rates should be the same percentage across all position classifications.

# ONLY THOSE EMPLOYEES WORKING ON T&M TREE CREWS WILL BE ALLOWED TO EARN CLIMBER'S PAY. (Not applicable for mowing, herbicide, Jarraff, etc.)

4044504

<u>Position</u>	<u>10/1/2017</u>
Field Operation Helper (Groundperson)	\$11.71
Trimmer	\$13.11
Climber	\$14.32
Crew Leader Trimmer (Bucket)	\$16.60
Crew Leader Climber (Climbing Crew Only)	\$17.71
General Foreman	\$21.04

#### **Special Skills**

## (Pass through to employee and not subject to contractor mark-up)

Herbicide (Firm or T&M Personnel) +\$1.50
ISA Certified Arborist (Firm or T&M Personnel)+\$3.00
ISA Certified Tree Worker (Firm or T&M Personnel) +\$2.00
Class "B" CDL (T&M Personnel Only) +\$0.75
Climbing Differential (Workers capable of climbing, but not on climbing crew and not expected to climb every day) +0.50
5 to 10 years of service (T&M Personnel Only) +\$1.00
10 to 15 years of service (T&M Personnel Only)+\$2.00
15 to 20 years of service (T&M Personnel Only) +\$2.50
20 + years of service (T&M Personnel Only) +\$3.00

- **A.** There will be no stacking of ISA certifications for payment differentials.
- **B.** Firm crew personnel are not eligible for CDL, climbing, or years of service differentials unless they are working on T&M.
- C. If Firm pay rates are higher than T&M rates after all differentials are added; the higher Firm rate will be paid to the worker while temporarily working under the T&M contract.

#### 26. Tenure

Contractor shall allow employees to count <u>all</u> time worked on JEA, or Participant Agency as applicable, System since October 1, 1997 for Employee Leave, and other Benefits that require minimum service time. This means Contractor will honor employment service time even if said employee was employed by another JEA tree Contractor on JEA System during the time in question.

## 27. Base Office, Storage Space and Telephone Facilities

JEA will provide an office space and telephone/fax for the Contractor's Supervisors. JEA will require the Contractor to provide a person to work at this satellite office to receive calls from the public, internal customers and other related duties. JEA may contribute towards the cost of person if required to work on JEA activities. JEA reserves the right to provide the office person. Field supervisors shall have a phone in each vehicle provided by the Contractor. The use of JEA's facilities, vacant properties, substation properties, or transmission right-of-ways by the Contractor for parking or storage of materials and equipment will not be permitted except by written permission from JEA.

#### 28. Communication

Contractor will be required to provide for all crews (including Supervisors) a GPS tracking system. Crews that have more than one vehicle shall be provided one for each vehicle. Contractor shall obtain JEA approval for the GPS tracking system, related devices and radios to be used. This GPS tracking system shall have the ability for JEA personnel to access and generate reports.

Contractor will be required to provide up to 10 phones for JEA Project Representatives. Contractor shall provide a cell phone for each T&M crew. These phones will be "Smart Phones" with data capability to be approved by JEA. If Contractor elects to use a radio system in addition to phones; the Contractor shall provide up to 10 radios for JEA representatives in addition to cell phones.

#### 29. Liquidated Damages

Contractor will have 30 days from JEA from issuance of the JEA Purchase Order Date to provide fifty (50%) percent of all required equipment and personnel. Contractor will then have 30 days after the first 30 days to provide the remaining fifty (50%) percent of required crews. A charge of \$500.00 per day will be incurred by the Contractor, in the form of Liquidated Damages, for failure to provide all required crews by this contract. Contractor will be notified within 10 working days after Bid Opening as to the number and type of crews required. At any time during the term of this contract, JEA may request the Contractor to provide additional or reduced crews as determined by JEA.

Crew(s) on standby that fail to respond to an emergency within one hour of being paged will result in

a charge of \$1,000.00 for each occurrence, in the form of Liquidated Damages. Fully staffed crew(s) will be at their trucks, ready to respond to system emergency, within one hour of page or call.

Falsification of timesheets will result in a charge of \$1,000.00 for each occurrence. Anytime that Contractor personnel and/or equipment are not doing productive work for JEA, it will be non-billable to JEA. Any person who violates this subsection after the first occurrence will be banned from JEA property. This subsection is written to address Contractor personnel that, while being paid by JEA, are involved in other activities not in JEA's best interest. Examples: Doing private tree work, "quick" trips for other Utility concerns, starting late, ending early, taking trucks to garage for repairs, fueling, etc.

At no time will any personnel be allowed to work on private tree work during their scheduled lunch break or at any time during working hours (6:30 am - 5:30 pm).

At no time will Contractor relocate any equipment and/or personnel off JEA's System without Manager of T&D Preventive Maintenance or designee approval (designee assigned by Manager of T&D Preventive Maintenance). If so, then JEA will consider this as a Work stoppage/slowdown. \$1000.00 per crew, per day off JEA's system. This line item includes Firm and T&M personnel and equipment.

Any truck not properly equipped with a working cell phone will incur Liquidated Damages of \$ 500.00 per truck/day while working on JEA's System.

Customer complaints due to debris being left without permission will result in Liquidated Damages of \$500.00 per complaint.

Contractor failure to notify JEA in writing, within 24 hours of any service disruptions will result in Liquidated Damages of \$500.00 per occurrence (such as Power, Water, Wastewater, CATV, and Phone).

Customer complaints due to gates being left open, unlocked, or locks bypassed will result in liquidated damages of \$100.00 per complaint.

Contractor's GF is expected to inspect work upon completion before notifying JEA that work is complete. Upon completion of work; a JEA representative will verify completion, and generate a "Punch List" for the Contractor to rework or complete if needed. Once this Punch List is completed by the Contractor, JEA's representative will verify the Work. Any items on the Punch List not completed or documented will be completed at the Contractor's expense if on T&M work, and Liquidated Damages of \$100.00 will be incurred for each location on T&M work or Production circuits.

Any Firm work scheduled within a quarter should be completed in that quarter. Any carryover work not completed within the following quarter will be subject to liquidated damages of \$500 per day per circuit until the work is completed and verified complete by JEA.

Work not performed to specifications by FIRM (Cost/Mile) or Unit (T&M) crews shall be corrected at the Contractor's expense within fourteen (14) calendar days of receiving written notice from any JEA representative. Corrections not completed to JEA satisfaction within 14 days will be subject to liquidated damages in the amount of \$100.00 for each day until the issue is corrected.

At JEA's option, Liquidated Damages may be deducted from any monies held by JEA, which are otherwise payable to the Contractor