Sustainable Resources Institute, Inc.

January 23, 2018

Dear Prospective Tree Planting Project Bidder,

The Sustainable Resources Institute, Inc. (SRI) is accepting bids on the Tree Planting Project on the Lake Louise Timber Sale in the Washburn Ranger District on the Chequamegon - Nicolet National Forest. This work is being conducted as part of a Stewardship Agreement, whereby the SRI administers the tree planting contract using funds resulting from timber sales. All communications, inspections, and supervision related to this work will be coordinated by SRI staff or representatives.

The tree planting specifications and bid sheet included in this package can also be accessed at <u>www.sustainableinc.org</u>

Any questions regarding the contract should be addressed to the Sustainable Resources Institute at 906.875.3720. Bids are due no later than 12:00 PM on February 16, 2018 according to the instructions on the bid sheet.

Thank you for your interest in this tree planting contract.

Kari Divine Sustainable Resources Institute 1353 W Highway US 2, Suite 2 Crystal Falls, MI 49920 kari@sustainableinc.org



1353 W. Highway US2, Suite 2 Crystal Falls, MI 49920

Phone: 877-284-3882

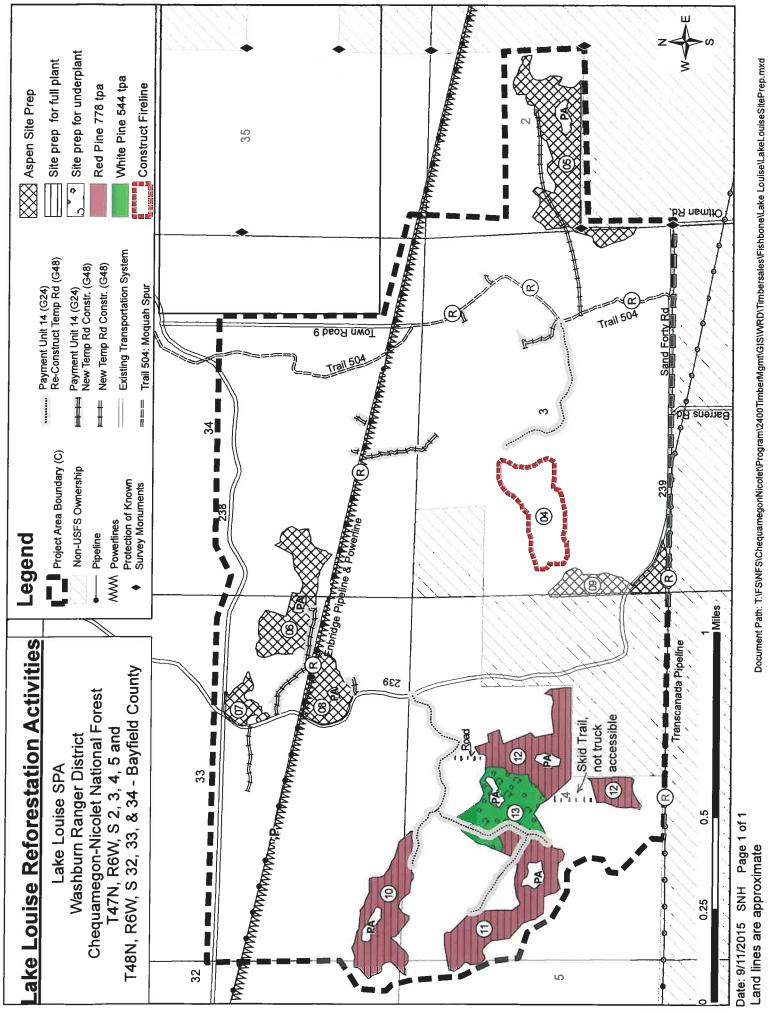
Fax: 906-875-3724

Tree Planting Project Highlights

This tree planting contract is part of a Stewardship Supplemental Project Agreement between Sustainable Resources Institute, Inc. and the USDA Forest Service. Funds generated from timber sales will be used to award this contract.

- Project Area: On the Chequamegon Nicolet National Forest; Washburn District
- This contract includes tree planting on 19.3 acres scarified with a trencher for white pine under planting (550 trees per acre) and planting on 80.9 trenched acres for red pine full planting (780 trees per acres), totaling 100.3 acres.
- The successful bidder will be required to submit for approval an operating plan that outlines the schedule of performance prior to contract signing. Work must be completed in the spring of 2018. The contractor will be required to (a) commence work under this project within 10 calendar days after the date the Contractor receives the notice to proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than 30 days after receiving the notice to proceed. The time stated for completion shall include final cleanup of the premises.
- Payment for work will be upon completion of the project and approval by Sustainable Resources Institute, Inc.
- A pre-work meeting is required.
- Successful Bidder will be announced following award of the Contract. Bid results for Stewardship contracts are not published on the Forest Service website.
- Bids are due no later than 12:00 PM on February 16, 2018.
- This package can also be downloaded at www.sustainableinc.org.
- Direct questions to the Sustainable Resources Institute, 906.875.3720

Payment Unit	Activity	Est. Acres	Quantity of seedlings in thousands (M)
13	White pine underplanting, 550 trees per acre	19.3	10.5
10	Red pine full planting, 780 trees per acre	22	17.1
11	Red pine full planting, 780 trees per acre	28.4	22.1
12	Red pine full planting, 780 trees per acre	30.5	30.5



TREE PLANTING BIDDING SHEET

Payment Unit	Activity	Est. Acres	Quantity of seedlings In thousands (M)	Unit Price	Total Price
13	White pine underplanting, 550 trees per acre	19.3	10.5		
10	Red pine full planting, 780 trees per acre	22	17.1		
11	Red pine full planting, 780 trees per acre	28.4	22.1		
12	Red pine full planting, 780 trees per acre	30.5	30.5		
Total Bid Price					

Due by: 12:00 PM on February 16, 2018

BY 12:00 P.M. CST - FEBRUARY 16, 2018 - SEND BIDS TO:

Sustainable Resources Institute, Inc. Attn: Tree Planting Project 1353 W HWY US 2, Suite 2 Crystal Falls, MI 49920 or

(Fax) 906.875.3724 or kari@sustainableinc.org

Signed by:	Address:
Printed Name:	
Title:	Phone:
Representing:	E-mail:

SRI reserves the right to reject any and or all bids.

1d. Planting o Planting COR – Jamie Paterson (715)373- 2667 (Alternate- Matt Bushman)

For the specifications listed below, "Contractor" and "Partner" are interchangeable. If the Partner chooses to Sub Contract the following items: Tree Planting, the following Provisions and Specifications must be followed to meet FS Guidelines and Federal Migrant Worker requirements, etc.

Payment Unit	Treatment Acres	Quantity of seedlings			
		In thousands M			
White pine planting (White pine planting (Under Planting 550 TPA)				
13	19.3	10.5			
Red pine planting (Red pine planting (Full Planting 780 TPA)				
10	22	17.1			
11	28.4	22.1			
12	30.5	30.5			
Total – 100.3 acres and 73.5 M seedlings					

GOVERNMENT-FURNISHED PROPERTY

The Government will provide the following item(s) of Government property to the Contractor for use in the performance of this contract. This property shall be used and maintained by the Contractor in accordance with the provisions of the "Government Property" FAR clause contained elsewhere in the contract.

Item Number	Description	Quantity	Delivery Date
01	SEEDLINGS	SEE SITE MAPS	AS AGREED UPON

FSAR 4G52.222-701 Employment of Eligible Workers (DEC 1999)

Section 274A of the Immigration and Nationality Act (8 USC 1324a) makes it unlawful for an employer to hire unauthorized aliens. The Immigration and Naturalization Service (INS) has established the Form I-9, Employment Eligibility Verification Form, as the document to be used for employment eligibility verification (see 8 CFR 274a).

The contractor is required to (1) have all employees complete and sign the I-9 Form to certify that they are eligible for employment; (2) examine documents presented by the employee and ensure the documents appear to be genuine and related to the individual; (3) record information

about the documents on the form, and complete the certification portion of the form; (4) retain the form for three years, or one year past the end of employment of the individual, whichever is longer.

It is illegal to discriminate against any individual (other than a citizen of another country who is not authorized to work in the United States) in hiring, discharging, or recruiting because of that individual's national origin or citizenship status.

Compliance with Section 274A of the Immigration and Nationality Act (8 U.S.C. 1324a) is a material condition of the contract. If the contractor employs unauthorized workers during contract performance in violation of section 274A, the Government may terminate the contract, in addition to other remedies or penalties prescribed by law.

For further information on the requirements of the Act, contractors should contact the Employer and Labor Relations Officer of their local INS office.

FSAR 4G52.222-702 Labor Standards for Contracts Involving Migrant and Seasonal Agricultural Workers (DEC 1999)

(a) *General.* This contract is subject to the Migrant and Seasonal Agricultural Workers Protection Act (MSPA) (29 U.S.C 1801-1872) and to Department of Labor regulations implementing MSPA (see 29 CFR 500). The purpose of MSPA is to eliminate activities that are detrimental to migrant and seasonal agricultural workers, to require registration of farm labor contractors, and to assure necessary protections for the workers. In addition to traditional farm labor activities, the Act applies to predominately manual forestry work including, but not limited to, tree planting, release, pre-commercial thinning, and site preparation and wildland fire fighting.

(b) Definitions.

"Migrant Agricultural Worker" and "Seasonal Agricultural Worker", as used in this clause, mean individuals employed in agricultural (including forestry) work on a seasonal or temporary basis. A worker who moves from one seasonal activity to another is employed on a seasonal basis even though the worker may continue to be employed during a major portion of the year. Migrant workers are required to be absent overnight from their permanent place of residence. Seasonal workers are not required to be absent overnight from their permanent place of residence. Members of the contractor's immediate family are not considered to be either migrant or seasonal workers. "Immediate family" includes only (1) spouse; (2) children, stepchildren, or foster children; (3) parents, stepparents, or foster parents; and (4) brothers and sisters.

"Farm Labor Contractor", as used in this clause, means an individual who, for any money or other valuable consideration, paid or promised to be paid, performs any recruiting, soliciting, hiring, employing, furnishing, or transporting of any migrant or seasonal agricultural worker.

(c) *Registration Requirement*. Any contractor who provides or hires migrant or seasonal workers to perform agricultural or manual forestry work shall first obtain a Certificate of

Registration from the Department of Labor or an authorized State agency. The contractor shall carry the Certificate at all times while engaged in contract performance, and shall display it upon request. Any of the contractor's employees who also perform any one or more of the activities defined for a "Farm Labor Contractor" in paragraph (b) must have their own Farm Labor Contractor Employee Certificate.

(d) *Worker Protections*. The contractor shall comply with the following protections and standards related to wage disclosure, recordkeeping, vehicle safety, and housing:

(1) The contractor shall display and maintain at the place of employment the MSPA poster provided by the Department of Labor.

(2) Wage and Payroll Standards

(i) The contractor shall disclose in writing to each worker in a language common to the worker the full terms of their employment, including workers compensation information, at the time they are recruited or hired. The Department of Labor provides an optional form WH-516 for contractor's use in disclosure.

(ii) The contractor must keep the following payroll records for each employee: name, address, social security number, basis for wages (i.e. per hour, per tree, per acre), number of units earned if paid on a per unit basis, hours worked, total pay, withholdings and purpose for each, and net pay. Payroll records shall be retained for three years.

(iii) Payments must be made no less frequently than every two weeks or semi-monthly. At the time of each payment, the contractor shall provide to the employee a written itemization of the information listed above and which shall include the employer's tax identification number.

(iv) If paid on a piece rate basis, the employee's wage must be at least equivalent to the required hourly wage for the hours worked, including overtime differential for time in excess of 40 hours per week.

(3) Motor Vehicle Safety

(i) The contractor must be registered to transport employees, unless employees provide their own transportation or carpool by their own arrangement in one of their own vehicles. The authorization to transport employees must appear on the contractor's certificate. If the contractor directs or requests employees to carpool, the registration requirement is still applicable. Any driver who transports workers for a fee or at the direction of the contractor must be registered as a farm labor contractor or a farm labor contractor employee.

(ii) Any vehicle under the ownership or control of the contractor shall comply with safety standards applicable to that vehicle. Generally passenger vehicles or station wagons must comply with Department of Labor regulations at 29 CFR 500.104. Vehicles other than passenger vehicles or station wagons which are driven more than 75 miles must comply with Department

of Transportation Regulations at 29 CFR 500.105. All drivers must have a current, valid State driver's license.

(iii) Each vehicle under the ownership or control of the contractor which is used to transport any migrant or seasonal agricultural worker shall be covered by vehicle insurance of \$100,000 per seat (maximum \$5,000,000). A workers compensation policy which covers the workers while being transported plus an additional property damage policy for \$50,000 for loss or damage in any one accident to the property of others may be substituted for the vehicle insurance requirement.

(4) Housing

(i) The contractor shall house workers only in a commercial establishment or a facility that has been certified by a health authority or other appropriate agency. The contractor must post the certificate of occupancy at the housing site.

(ii) The authorization to furnish housing, other than commercial lodging, must appear on the contractor's certificate.

(e) For further information on the requirements of the Act, contractors should contact their local Wage and Hour Division of the Department of Labor.(iii) If the contractor is not furnishing worker housing:

Workers on this contract may obtain housing only in a residential accommodation, including a commercial establishment such as a hotel or motel, which meets all applicable state and federal standards for employee housing.

Within 10 days after award, and prior to the arrival on the forest, the contractor must notify the Contracting Officer of the planned worker housing site.

If the housing site is located on a National Forest, the Contractor must obtain a permit from the District Ranger for the District on which the housing site is located and the facilities established for the workers must meet the applicable U.S. Department of Labor (USDOL) MSPA standards for such sites.

If the housing site is not located on a National Forest, the site must meet the applicable housing standards in MSPA.

If an exemption from the permit requirement is claimed, the contractor must provide a written statement identifying the law authorizing the exemption, stating the facts constituting an exemption under that law, and identifying a USDOL employee or official who stated or concurred that the accommodations were exempt, citing name, date, and means of communication.

If the housing site is changed after approval by the Contracting Officer, the contractor must provide a new Permit or exemption statement. The above requirements are material conditions

of this contract. If the contractor fails to comply, the Government may terminate the contract. In addition, other remedies or penalties prescribed by law may apply

Field Sanitation

In accordance with US Department of Labor Fact Sheet No. ESA 97-28 "Field Sanitation Standards" (Ref. 29CFR 1928.110), employers must provide:

- Potable drinking water, suitably cool and in sufficient amounts, dispensed in single-use cups or by fountains, located so as to be readily accessible to employees.
- ► Facilities maintained in accordance with public health sanitation practices include upkeep of water quality through daily change or more often if necessary.
- Notification to each employee of the location of the water and allowance of reasonable opportunities during the workday to use them. The employer also must inform the employee of the relevant health hazards in the field and the practices necessary to minimize them.

Employees cannot be made to bear the costs incurred by the employer for providing required facilities.

FSAR 4G52.222-703 Migrant and Seasonal Agricultural Worker Protection Act Registration (DEC 1999)

The Migrant and Seasonal Agricultural Worker Protection Act (MSPA) (29 U.S.C. 1801-1872) and implementing regulations issued by the Department of Labor (29 CFR 500), require any employer who hires or anticipates hiring employees subject to MSPA to obtain an MSPA registration number.

If the contractor employs or anticipates hiring employees subject to MSPA, the contractor shall provide a valid U.S. Department of Labor MSPA Registration Number to the Contracting Officer within 10 days after notification of award of the contract.

The Government may demand that the contractor display MSPA registration at any time during contract performance if it appears that the contractor is employing workers subject to MSPA. On demand, the contractor shall display its MSPA registration or state why it is exempt from MSPA.

Compliance with MSPA is a material condition of the contract. If the contractor fails to provide a valid MSPA number in accordance with this clause, or falsely states that it is exempt from the MSPA, the Government may terminate the contract, in addition to other remedies or penalties prescribed by law.

4G52.222-704 PERSONAL PROTECTIVE EQUIPMENT (FEBRUARY 2007)

The contractor shall train workers in the safe operation and use of equipment that the worker may use before the worker begins using such equipment.

Personal protective equipment, including personal protective equipment for eyes, face, head, and extremities shall be provided, used, and maintained in a sanitary and reliable

condition wherever it is necessary by reason of hazards or processes encountered which may cause injury or impairment in the function of any part of the body. Defective or damaged personal protective equipment shall not be used. The CO/COR/Partner may choose to shut down the operation if he/she determines personal protective equipment is necessary and it is not available.

The contractor shall provide chain saw chaps to each employee who operates a chain saw, at no cost to the employee. These chaps must be approved by an Underwriters Laboratory or meet Forest Service specification 6170-47. The chaps shall cover the full length of the thigh and shall extend to the top of the boot on each leg.

The contractor shall assure that each employee wears foot protection that provides adequate traction and ankle support. Employees operating chain saws shall wear foot protection that is constructed with cut-resistant material which will protect the employee against contact with a running chain saw.

In any area where the worker is exposed to the potential for flying or falling objects, the contractor shall provide a hard hat, at no cost to the employee, and the contractor shall assure that the employee wears the hard hat. The hard hat must meet the minimum requirements of American National Standards Institute (ANSI) standard Z89.1-1997.

The contractor shall provide, at no cost to the employee, eye protection where there is potential for eye injury due to flying objects. This eye protection must meet the minimum requirements of ANSI standard Z87.1-2003.

The contractor shall provide, at no cost to the employee, hearing protection where there is a potential for hearing loss due to high intensity noise for example, chainsaw operation.

4G52.222-705 CAMPING PROVISIONS FOR LABOR INTENSIVE CONTRACTS (FEBRUARY 2007)

The following provisions apply to all camping on National Forest lands during performance of this contract:

These provisions are in addition to those contained in, or provided for, in the clause titled "Use of Premises", in this contract.

Every structure used as shelter shall provide protection from the elements. Where heat adequate for weather conditions is not provided, other arrangements should be made to protect workers from the cold. Firewood may be cut only after obtaining a Chequamegon-Nicolet National Forest Firewood Permit (obtained at any district office).

The campsite must not encroach beyond the boundaries designated by the Forest Service. The campsite shall be located so as to minimize impacts on streams, lakes, and other bodies of water. No camping is permitted along primary recreation roads. When camping in developed recreation

sites all rules must be followed, including paying for the sites occupied. No camping is allowed in one location for more than consecutive 14 days unless it is agreed upon by the COR and district ranger and law enforcement is notified.

The campsite shall have a clean appearance at all times. Upon abandonment of any campsite, or termination, revocation, or cancellation of camping privileges, the contractor shall remove, within 10 calendar days, all structures and improvements except those owned by the United States, and shall restore the site, unless otherwise agreed upon in writing or in the camping permit. If the contractor fails to remove all structures or improvements within the 10 calendar days, they shall become the property of the United States, but that will not relieve the contractor of liability for the cost of their removal and restoration of the site.

Unless otherwise designated by the Contracting Officer, the use of this area is not exclusive, and may be granted to other Permittees, contractors, or recreating public. Disorderly conduct is not permitted. Damaging or removing any natural feature or other property of the Forest Service is prohibited. Servicing of equipment in the campsite is not permitted, unless the campsite is within the project area. Sanitary facilities shall be provided for storing food. Ice chests or coolers, with ice supply made from potable water and replenished as necessary, shall be provided and sufficient for the storage of perishable food items. An adequate and convenient potable water supply shall be provided in each camp for drinking and cooking purposes. Toilet facilities adequate for the capacity of the camp shall be provided and supplied with adequate toilet paper. Such facilities shall be serviced and maintained in a sanitary condition. Garbage shall be collected, stored, and disposed of in such a manner as to prevent scattering by the wind, minimize attraction of flies, and discourage access by rodents.

Basic first aid supplies shall be maintained, available, and under the charge of a person trained to administer first aid. The supplies shall include:

Gauze pads (at least 4x4 inches) Two large gauze pads (at least 8x10 inches) Box adhesive bandages (band-aids) One package of gauze roller bandage at least 2- inches wide Two triangular bandages Scissors At least one blanket Tweezers Adhesive tape Latex gloves Resuscitation device such as resuscitation bag, airway, or pocket mask

Any washing of laundry must be done in such a way as to provide for washing and rinsing without polluting lakes, streams, or other flowing water.

Waste water must be disposed of away from living and eating areas and in a fashion that minimizes pollution to lakes, streams, and other flowing water.

The contractor shall take all reasonable precautions to prevent and suppress forest fires. No material shall be disposed of by burning in open fires during the closed season established by law or regulation without the written permission from the Forest Service.

The contractor shall comply with the following fire regulations during fire season:

During the fire season, a shovel, axe or Pulaski, 10-quart pail which is full of water for immediate use, and a fire extinguisher with an Underwriters Laboratory (UL) rating of at least 1:A 10:BC is required during the fire season.

All fire rings or outside fireplaces must be approved by the Forest Service representative. The area will be cleared down to mineral soil for a distance of 1 foot outside of the ring or fireplace, and it will not have any overhanging material. Fire rings will be dismantled and material disposed prior to leaving the site.

All generators and other internal combustion engines must be equipped with US Forest Service approved spark arrestors and/or factory designed muffler and exhaust system in good working order. They will be located in a cleared area with the same requirements as in (b).

All fuel must be stored in UL approved flammable storage containers and be located at least 50 feet from any open flame or other source of ignition.

Any violation of these conditions constitutes a breach of contract, and may result in revocation of camping approval.

The Forest Service reserves the right to terminate a camping permit at any time.

INSPECTION AND ACCEPTANCE

1. CONTRACTOR QUALITY CONTROL

The general Quality Control Plan must demonstrate how the Contractor will assure quality to meet the requirements and specifications of the contract. The Plan shall describe how quality will be monitored to assure the performance standards are met, the supervision of crew and work, and personnel that will be performing the quality control. Quality control shall include monitoring quality while planting is in progress, tree care, and other associated tasks

2. GOVERNMENT INSPECTION

The Government will inspect planting to determine compliance with specifications and to provide the basis for computing the rate of payment. Inspections will consist of observations of tree handling, planting spot preparation, planting procedures, and examinations of individual planted trees. The inspection plots will be located throughout the planting sites so as to obtain a representative sample of the work. Each individual planting site will be inspected separately, and inspection results on one planting site will not be averaged with inspection results on other planting sites. The

Government will inspect, as a minimum, 1% of the planted trees per site, with a minimum of 5 plots well-distributed across the site.

Determination of the acceptability of the work performed will be based on these inspections, which will be considered conclusive, except as otherwise provided in the contract. The Contractor or Contractor's Representative is encouraged to observe inspections while they are underway.

3. REINSPECTION UPON CONTRACTORS REQUEST

If the inspection results are unacceptable to the Contractor, a re-examination may be requested. Requests for reinspection must be made in writing within 5 days after receipt of initial inspection results. The same inspection procedure will be used. New plots will be selected and an additional 1% of the planted trees will be sampled for total of at least 2% of the planted trees. The inspection pattern will be shifted so new inspection plots will not overlap previously inspected plots.

Inspection results of the reinspection will be used in determining the planting quality. The Contractor will bear the cost if the reinspection results are equal to or lower than original results.

Any inspection needed due to the Contractor reworking an area, shall be at the Contractor's expense.

4. REWORK

The Government will permit the Contractor to rework an area only if planting stock is available and the existing deficiencies can be corrected.

5. ACCEPTANCE

Work on individual planting sites will be accepted following the final inspection by the COR and Partner. Quality of work standards are described above on pages 53-58. Work with a 90 percent quality or better will be accepted at full payment plus incentive for quality above 90 percent. Planting sites which have an inspection quality between 80% and 89% will be accepted at a reduced pay rate as indicated in Payments and Deductions Section. The Government reserves the right to require rework of areas with planting quality between 80% and 89%, if planting stock is available and the existing deficiencies can be corrected. The Contractor will not be assessed damages for rework if the original planting quality was at least 80% and the rework is at the Government's request. Work with an inspection quality less than 80% is not acceptable, and will not be paid for.

RESTRICTION ON WORK

Work may be performed at any time during the period of the contract, except as outlined in this part. Restrictions are as follows:

a. Access is restricted by State or Forest Service Closure Order.



- b. When the Contracting Officer (or designated representative) determines that adverse weather has made access too dangerous or that continued vehicular travel would cause unacceptable road damage.
- c. Work is suspended by notice of a Work Order for non-compliance with requirements of this contract.
- d. Site conditions are not favorable for planting.

MEASUREMENT

Where the unit of measure is by the tree, the measure of the number of trees planted shall be determined by the number of trees placed in the bags or trays at the nursery. The Forest Service will do quality assurance inspections on the tree count in the bags or trays.

PAYMENTS AND DEDUCTIONS

Payment will be based on number of trees planted and quality of planting as accepted by the Government. Payment will be processed for completed items only. Wasted Trees will be charged for at a rate of \$275 per M for bare-root trees or \$425 per M for container trees.

Planting quality at 90 percent or above will be paid at the full price for the individual site with a 1% increase for each percent above 90. If planting quality falls below 90 percent for a site, a deduction will be made against the site payment for every percent below 90 as shown in the following table. Planting quality below 80 percent will be rejected without payment. Examples of the payment schedule are shown below:

PLANTING QUALITY	ADJUSTMENT (%)	FINAL PAYMENT (%)
100	+10	110
98	+8	108
96	+6	106
94	+4	104
92	+2	102
90	0	100
89	-4	96
88	-8	92
87	-12	88
86	-14	86
85	-15	85
84	-16	84
83	-17	83
82	-18	82
81	-19	81
80	-20	80
	• • •	

79 and lower will be rejected

WORK PROGRESS SCHEDULE

The Contractor shall be required to present a written plan of work providing for the orderly and timely completion of the contract requirements. This plan is subject to the approval of the Contracting Officer Representative. The schedule may be modified in writing during the course of the contract when conditions warrant it. However, changing the schedule may result in a shortage of seedlings. Seedlings are freshly lifted at the Toumey Nursery, and delivery of seedlings are contracted to be delivered on specific dates based on the work plan submitted with the task order.

If the work progress falls behind schedule, the Contractor shall take such action as necessary to ensure that the timely completion of the contract is not jeopardized. In addition, the Contracting Officer may require the Contractor to submit a revised plan of work showing how he intends to complete the project on time and in compliance with all contract requirements.

SUPERINTENDENCE BY THE CONTRACTOR (FAR 56.236.6) (APR 1984) (DEVIATION)

At all times during performance of this contract and until work is completed and accepted, the Contractor shall directly supervise the work or assign and have on the worksite a competent superviser who is satisfactory to the Contracting Officer and has the authority to act for the Contractor.

All work under this contract shall be performed in a skillful and workmanlike manner. The Contracting Officer may require in writing that the Contractor removes from the work any employee the Contracting Officer/ COR/Partner deems incompetent, careless, or otherwise objectionable.

The Contractor's onsite representative shall be fully conversant in the English language, spoken and written, sufficient to read and understand the contract, and communicate effectively with Contracting Officer's Representative.

Planting shall be performed in an organized manner.

Planting with scattered crews within or between sites shall not be permitted except as necessitated by on-the-ground conditions and only when authorized by the Contracting Officer Representative. The Contractor shall provide one non-planting supervisor for each crew of up to 10 planters unless otherwise authorized by the Contracting Officer.

Key Personnel

Key personnel are those personnel (Project Manager, on-site representative, non-planting supervisor, quality control inspector etc.) considered essential for successful completion of this contract. All key personnel shall be identified in the Contractor's Technical Proposal.

The Contractor agrees that assigned key personnel shall not be removed, substituted, or reassigned to another task without the written concurrence of the Contracting Officer. The Contractor shall provide a detailed explanation of the circumstances necessitating the proposed personnel change and any additional information requested by the Contracting Officer. Proposed substitutes should have comparable qualifications to those of the persons being replaced. If the Contracting Officer determines that suitable replacement of key personnel is not feasible or that the reduction of effort would be so substantial as to impair the successful performance of the work, the Contractor may be subject to default action under the affected task order(s) or the contract. Ultimate approval/disapproval to replace key personnel is the responsibility of the Contracting Officer.

DEFINITIONS

Project Location Maps will specify the type of planting, species, target stocking levels, desired spacing and/or pattern of planted trees and unplanted openings and estimated number of trees to plant.

EXCLUSIONS - Areas to be left unplanted for roads, inclusions, wildlife openings, and other reasons as may be shown on the attached map, and/or as designated on the ground by the Contracting Officer Representative. Do not plant within thirty-three (33) feet of any designated system road, fence, power line, or pipeline right-of-way, or within thirty-three (33) feet of an existing tree line unless instructed to do so by the Contracting Officer Representative.

FULL PLANT IN TRENCHES OR BRÄCKE SPOTS - Normal open field planting usually consisting of 500 or more trees per acre. Planting spot will be in trench or bräcke spot. Spacing of trees in trenches will be identified on site maps.

KEY PERSONNEL – All personnel considered essential for successful completion of this contract (e.g. Project manager, planting foreman, quality control inspector, etc).

UNDERPLANT ON ROCK RAKED OR CHAINED SITE- Planting underneath a partially stocked stand of trees where slash has been reduced and soil scarified by salmon blade, root rake, or anchor chains. Planting spot location will be identified by the tree planter and be free of debris, duff, ashes, or similar material. No trees shall be planted within 6 feet of a residual tree greater than 4 inches in diameter. Spacing of trees will be identified on site maps.

WASTED TREES – Consists of trees which are ordered by the contractor but not planted in a timely manner, trees mishandled by the contractor, or trees planted at a density more than 20% above target as specified on the site map. Law Enforcement will be notified if wasted trees are due to theft, burying, hiding or unnecessary discarding.

TASKS AND CRITICAL SUB TASKS

This part of the contract identifies the critical tasks and subtasks required in the contract. It also specifies the quality standard of each task and related subtask, as well as the acceptable quality level for each task and related subtask, the means of measuring the level of quality and any penalties or incentives associated with the level of quality.

For each crew or change of crew members on this contract, at the job site immediately prior to the start of planting by each crew, the contractor or his designated foreman shall discuss the following specifications with all crew members:

- Care of Tree Seedlings	- Preparation of Trees by Contractor

- Field Handling
- Planting Spot Preparation
- Tree Placement

- Spacing and Spot Selection
- Preparing the Planting Hole
 - Filling and Firming

Quality Standards for Care and Handling of Seedlings and Related Subtasks

<u>Planting Equipment</u>: Planting tools shall be provided by the Contractor and shall have a blade of sufficient size to produce a planting hole at least 12 inches deep and 4 inches wide.

<u>Work Methods</u>: The Forest Service will provide trees for one planting site at a time, within two days of request. The Contractor shall complete one planting site prior to starting another unless other arrangements are approved by the Contracting Officer Representative.

<u>Planting Bags</u>: Bags shall be a light color, have a minimum depth of 15 inches and be free of defects. Planting bags shall be used for bare-root trees only. Container trees shall remain in styroblocks until each tree is removed for immediate planting unless other arrangements are approved by the Contracting Officer Representative.

Care of Tree Seedlings

The Contractor shall adhere to the following specifications for care and protection of trees in their possession:

Trees shall be protected at all times from drying, heating, smothering, freezing, crushing, drowning, abrasion, rapid temperature fluctuations or contact with injurious substances.

Transporting trees from tree cooler to planting site. When transporting tree, trees are not to be exposed to fuel supplies or fumes. Trees shall only be transported from the cold storage building to the planting site in a carrier approved by the Contracting Officer Representative.

Trees stored in trays or bags shall not be exposed to direct sunlight. Punctured or torn bags must be promptly resealed. Containers of trees shall be opened only in full shade to the extent feasible. Each tray or bag of trees shall be stored in insulated boxes or under reflective tarps while in the Contractor's possession.

Trees shall not be removed from shipping containers or from under reflective tarps until immediately prior to planting.

Trees shall be planted without further root or top pruning or culling. If pruning or culling appears necessary, or if mold, dry roots, evidence of injury or drying is seen, the condition shall immediately be reported to the Contracting Officer's Representative (COR) in charge.

Trees that are frozen shall not be handled until completely thawed, the condition shall immediately be reported to the Contracting Officer's Representative (COR) in charge. Trees shall be thawed in full shade.

Trees removed from storage shall be field-stored in a manner in which the roots are not in contact with water or snow.

Trees will be planted in the order they are removed from the refrigeration coolers.

<u>Quality Standard</u> - Seedlings remain moist, cool with good needle/bud vigor at all times prior to actual planting. Seedlings are free of mechanical damage and root elongation is minimal.

PREPARATION OF TREES BY CONTRACTOR

The contractor shall prepare trees for planting in accordance with the following:

For all bare root seedlings the Contractor shall break the tie on each bundle of trees and loosely separate the roots. Contractor shall not shake dirt from the roots. Contractor shall not dip the seedlings in water; only spraying of water should be used to moisten the seedling roots when needed. When preparing to take seedlings into the field for planting, the Contractor shall not remove trees from shipping containers until just prior to planting.

<u>Quality Standard</u> - Seedlings remain moist, cool with good needle/bud vigor at all times prior to actual planting. Seedlings are free of mechanical damage and root elongation is minimal.

FIELD HANDLING

Trees in possession of planters shall be handled in accordance with the following:

Trees in planting bags shall have only their tops exposed.

Trees shall not be removed from planting bag until immediately before planting in a prepared hole.

Trees shall be gently removed, one at a time, to prevent stripping, root drying or other injury,

and quickly and gently inserted into the planting hole.

Trees carried in planting bags shall not exceed the amount that can be carried and removed without injury, or which can be planted before critical heating or drying occurs. Trees placed in planting bags shall be planted <u>within one hour</u>. Trees placed in planting bags shall be planted out and not returned to storage. Unless otherwise authorized by Contracting Officer's Representative, when treeing up planters shall start with a maximum of 100 trees to assure trees are not being carried for more than one hour. Planting bags shall be kept emptied of accumulated debris and water. Planters shall work in one group whenever possible.

Planters leaving the boundary of the planting site shall leave all trees inside the site.

<u>Quality Standard</u> - Seedlings remain moist, cool with good needle/bud vigor at all times prior to actual planting. Seedlings are free of mechanical damage and root elongation is minimal.

SPACING AND SPOT SELECTION

<u>Tree Spacing Requirements</u>. Where Bräcke scalps are present, plant in the scalps. Where Bräcke scalps are not present, trees shall be planted in spots distributed over the area at the average spacing specified on the Project Location Map, unless directed to do otherwise by the COR/Partner. Where an unplantable spot is encountered, the planter shall disregard spacing limits and plant in the closest suitable spot. Spacing may be varied up to 25 percent to take advantage of shade-providing material and the most favorable planting spots.

<u>Planting Spot Selection</u>. Where Bräcke scalps are present, planting holes shall be located near the center and on the higher edge of the scalp in a vertical position. Where trenches are present, planting hole location within the trench will be specified on the site map. Where Bräcke scalps or trenches are not present, as much as possible within the requirements set forth in Tree Spacing Requirements, planting spots shall be selected where stumps slash, logs, dead brush, and terrain features provide partial protection from sun, wind, animals, loose debris, and other agents detrimental to tree survival and growth.

<u>Quality Standard</u> – The specified spacing in the individual site Project Location Map sheet is met.

PLANTING SPOT PREPARATION

When directed to do so on the Project Location Map, the contractor shall make a scalp to expose bare mineral soil. Trees shall be planted near the center of the scalp. If the scalp is made adjacent to a stump, rock or other shade providing object, the contractor shall plant as close to the object as possible. Planters shall prepare the planting spot so that it is not possible for loose dirt or other debris to fall on the planted tree seedling.

<u>Quality Standard</u> – Seedlings will be planted in mineral soil.

PREPARING THE PLANTING HOLE (Hoedad or other planting tool)

Planting holes shall be oriented at an angle, within fifteen degrees of perpendicular to the slope and true vertical. An open hole, broken out and large enough to fully accommodate the roots of the trees to be planted, is required. Up to three attempts at opening a planting hole at any given planting spot will be required. The contractor is expected to open planting holes in difficult as well as easily plantable ground.

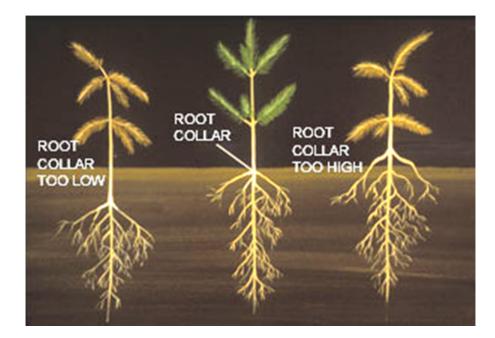
Quality Standard – Seedlings will be planted in holes within fifteen degrees of vertical.

TREE PLACEMENT

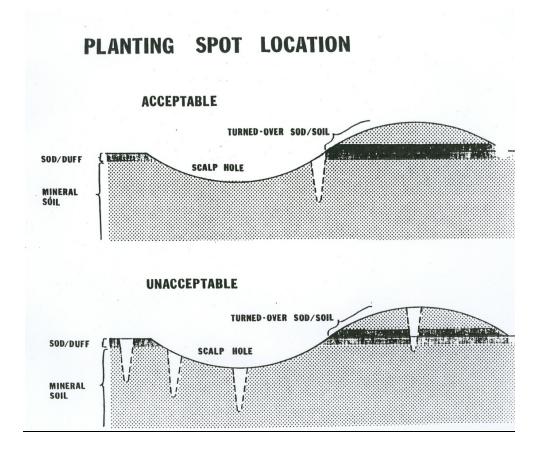
Trees shall be placed near the center of the hole with roots in a near natural arrangement at a depth that will, after filling, packing and leveling the soil, come to a point even with, or up to one inch above the root collar. No portion of the roots or root collar shall be exposed. The roots shall not be doubled up, twisted, spiraled, bunched or cut. The root system shall be aligned with the axis of the planting hole with all roots extending downward in a near natural position for their entire length.

<u>Quality Standard</u> – Seedlings will be planted so that the root collar is even with the soil surface or within one inch below the soil surface.

The Correct Planting Depth.



Planting location in a Bracke spot



FILLING AND FIRMING

Moist mineral soil shall be filled in and firmed around tree roots. Planting holes shall be free of dry soil, ash, organic matter, rock, other foreign material, and air pockets. Soil shall be filled in and firmed progressively, starting at the bottom of the hole, so that no loose soil or air pockets remain and the tree is as firmly planted as soil conditions will allow. The Contractor shall not wedge the sides of the planting hole, and firming the soil around the tree shall be done in a manner that assures the tree and root systems are not damaged. After planting, the tree stem shall be erect and be vertical or perpendicular to the ground level of the planting spot. The tree shall not be weighed down with mud or debris. Firmness will be inspected by gently pulling upward on the stem of the seedling. The soil shall be firm enough around the root system so no movement occurs to the seedling.

UAS

<u>Quality Standard</u>. No debris or foreign material shall be incorporated into the planting hole. The planted tree shall be located near the center of the planting spot and the roots shall be oriented at an angle between perpendicular to the slope and true vertical. No portion of the roots or root collar shall be exposed. The root system should be free of j-roots and tangled or balled roots. The soil shall be firm enough around the root system so the seedling does not move when gently pulled and no air pockets exist.

Tasks and	Quality	Acceptable	Monitoring	Negative	Positive
Critical Subtasks	Standards	Quality Level (AQL)	Methods	Incentives	Incentives
Care of tree seedling	Task accomplished as described in TASKS & CRITICAL SUBTASKS	99% of all tree seedlings shall meet Quality Standards.	Visual sampling by the Gov't	Suspend work until deficiency is corrected. Poor performance rating. No option year renewal.	Good performance rating. Possible option year renewal.
Preparation of trees by Contractor	Task accomplished as described in TASKS & CRITICAL SUBTASKS	99% of all tree seedlings shall meet Quality Standards	Visual sampling by the Gov't	Suspend work until deficiency is corrected. Poor performance rating. No option year renewal.	Good performance rating. Possible option year renewal.
Field handling	Task accomplished described in TASKS & CRITICAL SUBTASKS	99% of all tree seedlings shall meet Quality Standards.	Visual sampling by the Gov't	Suspend work Until Deficiency is Corrected. Poor Performance Rating. No option year renewal.	Good performance rating. Possible option year renewal.
Spacing and spot selection	Task accomplished described in TASKS & CRITICAL SUBTASKS	90% of all Government plots showing correct number of trees shall meet Quality Standards.	Plot sampling by the Govt.	Rework at no cost to the Gov't or Gov't accept with price reduction. No option year renewal.	Contractor shall receive full payment for meeting AQL. Possible option year renewal.

PERFORMANCE REQUIREMENTS SUMMARY

USDA, Forest Service

Tasks and Critical Subtasks	Quality Standards	Acceptable Quality Level (AQL)	Monitoring Methods	Negative Incentives	Positive Incentives
Planting spot preparation.	Task accomplished described in TASKS & CRITICAL SUBTASKS	90% of all tree seedlings shall meet Quality Standards.	Plot sampling by the govt.	Rework at no cost to the Gov't or Gov't accept with price reduction. No option year renewal.	Contractor shall receive full payment for meeting AQL. Possible option year renewal.
Preparing the planting hole	Sub-Task accomplished described in TASKS & CRITICAL SUBTASKS	90% of all tree seedlings shall meet Quality Standards.	Plot sampling by the govt.	Rework at no cost to the Gov't or Gov't accept with price reduction. No option year renewal.	Contractor Shall receive full payment for meeting AQL. Possible option year renewal.
Tree placement	Sub-Task accomplished described in TASKS & CRITICAL SUBTASKS	90% of all tree seedlings shall meet Quality Standards.	Plot sampling by the govt.	Rework at no cost to the Gov't or Gov't accept with price reduction. No option year renewal.	Contractor shall receive full payment for meeting AQL. Possible option year renewal.
Filling and firming	Sub-Task accomplished described in TASKS & CRITICAL SUBTASKS	90% of all tree seedlings shall meet Quality Standards.	Plot sampling by the govt.	Rework at no cost to the Gov't or Gov't accept with price reduction. No option year renewal.	Contractor shall receive full payment for meeting AQL. Possible option year renewal.

QUALITY ASSURANCE SURVEILLANCE PLAN FOR TREE PLANTING

Objective: The purpose of this plan is to provide a quality surveillance plan for Tree Planting performed under this contract. This plan provides a basis for the Contracting Officer's Representative to evaluate the quality of the Contractor's performance. The oversight provided for in the contract and in this plan will help to ensure that quality levels reach the required levels of performance.

Quality Level: By monitoring the Contractor, the COR/Partner will determine whether the performance levels set forth in the contract have been attained. Quality standards for all tasks are specified in the Tasks and Critical Sub Tasks Section.

On-site Inspections: The COR and Partner will evaluate the current levels of performance, according to the standards set forth at the discretion of the COR and Partner.

Evaluation Methods: The COR and Partner will conduct periodic on-site inspections. Planting procedures will be observed and planted seedlings on representative sample plots will be examined to ensure and measure compliance with specifications. Inspection of planted seedlings will be recorded on form R9 FSH 2417-2.8. Specific inspection items include but are not limited to:

Above Ground Inspection:

Planting spot selection. Planting spot preparation. Tree location on planting spot. Planting depth and exposed roots. Stem position or damage. Firmness. Spacing. Tree Shelter Installation (if applicable).

Below Ground Inspection:

Planting hole preparation. Planting hole orientation. Root configuration and orientation. Altered root length and damage. Foreign material in planting hole - rocks, sticks, wood, duff, etc. Loose soil or air pockets. Tree Shelter stake depth (if applicable).

Plot Inspection Procedure

The inspector will mark on the ground a series of plots sufficient in number to sample at least one percent of the planted trees.

Suggested inspection plot sizes:

TABLE 1				
Inspection Plot Size	Plot Radius	Target planting density		
		range		
1/100 ac	11.8 ft	>1000 trees/ac		
1/50 ac	16.7 ft	500 – 1000 trees/ac		
1/20 ac	26.3 ft	200 – 500 trees/ac		

Other plot sizes may be appropriate for some planting specifications.

Inspection within each plot will be as follows and the sequence in which these steps are done may vary. All trees inspected using Form R9FSH 2417-2.8 (attached).

- 1. Locate and mark the plot center on the ground.
- 2. Determine from Table 1 the inspection plot size based on target planting density.
- 3. Record the total number of trees sampled on the plot.
- 4. Use Table 2 to determine the minimum number of trees to be dug up to check below ground planter performance. For example, if you have 9 trees on the plot, then inspect every tree above ground and every third tree above and below ground.

TABLE 2				
Number of Planted Trees on Plot	Minimum Number to be Dug			
1	1			
2 - 6	2			
7 - 9	3			
10 - 12	4			
13 plus	5			

- 5. Working in a clockwise direction from north locate and examine the condition of planted trees. A poorly planted tree may have more than one violation, but record only the most severe violation.
- 6. Compute the Planting Quality Percentage (PQ %) by the following formula:

PQ% = (Total planted right X 100) / Total Sampled

7. Percentage of planting quality as calculated above will be rounded upward to the nearest whole percent. Upon completion of each planting site, the Contractor may request in writing a final evaluation of planting. The evaluation results will be made available within three days of receipt of the Contractor's request. In the event Forest Service Inspectors become aware of planting quality falling below 90 percent or repetitive type planting errors are found, the Contractor will be notified.