

Exhibit B: Planting Specifications and Inspections

I. PRESCRIPTION

A. The planting blocks include 250 acres of former farmland, mostly in the Conservation Reserve Program. The Senkler Road area includes understocked portions of Allotments 433A, 641A and 641C occupied primarily by brush. The Tamiyel strips were harvested in 2011 and piles were burned in late fall and winter. Table 1 shows more details.

Table 1: Site Details

Planting Block	Area (Acres)	Ground Cover	Aspect	Elevation	Slope (Percent)	% Plantable
A619 CRP	86	Bluegrass	rolling	2,650	2 - 20%	95%
A619 Field 4	41.7	Grass	W - NW	2,700	2 - 20%	100%
Ness Rd Velpar	91.4	Grass/Forb	rolling	2,620	5 - 15%	95%
Ness Rd. Mix	8.5	Grass	NW	2,700	0 - 15%	90%
Senkler Rd.	18.3	Brush	rolling	2,800	5 - 15%	65%
Tamiyel Strips	16.5	Mix	N to S	3,000	10 - 30%	88%
Totals:	262.4					

Table 2: Planting Prescription.

Planting Block	Site Preparation	Trees to Plant	Target Spacing	T/Ac to Plant	Species	Prescribed Herbicide/Ac.
A619 CRP	Spot Spray	26205	12' X 12'	305	PP/DF	Velpar, 4 Qts.
A619 Field 4	Spot Spray	12600	12' X 12'	304	PP	
Ness Rd Velpar	Spot Spray	27675	12' X 12'	303	PP/DF	
Ness Rd. Mix	Spot Spray	2565	12' X 12'	302	PP/WP/WL/DF	Atrazine, 2 Qts., Glyphosate, 2 Qts.
Senkler Rd.	Spot Spray	5255	10' from L/PP/WP	287	PP/WP/WL	Atrazine, 2 Qts., Glyphosate, 3 Qts.
Tamiyel Strips	Pile & Burn	7200	10' X10'	436	PP/WL/WP	None
Total:		81500				

During planting, each tree shall be planted near the middle of a 1 foot by 1 foot area cleared of vegetation and plant litter to facilitate herbicide application (finding seedlings) and prevent contact with vegetation contaminated by herbicide.

The Contractor shall provide and apply herbicides, so that a 5 foot spot is sprayed around each tree at the rates shown in Table 2. A Professional Applicator licensed to apply pesticides in a forested environment shall direct handlers and workers trained as required by the Federal Worker Protection Standards. Where glyphosate is applied, trees shall be shielded while spraying to prevent herbicide contact with the planted tree. On the Senkler Road area blocks, application is also required around surviving pines and western larch planted in previous years that are less than 2 feet tall. The estimated number of trees to be sprayed on that area has been increased to 435 trees per acre.

Planting Block	Area (Acres)	Trees to Spray	Spray Area/Ac.	Spray Area/Block	Estimated quarts needed		
					Atrazine	Glyphosate	Velpar
A619 CRP	86	26205	0.1371	11.79			47.17
A619 SE	41.7	12600	0.1360	5.67			22.68
Ness Rd Velpar	91.4	27675	0.1363	12.45			49.82
Ness Rd. Mix	8.5	2564	0.1357	1.15	2.31	2.31	
Senkler Rd.	18.3	7956	0.1956	3.58	7.16	10.74	
Totals	245.9	77000		34.65	9.47	13.05	119.66

II. SPECIFICATIONS: Adapted from “Plug Seedling Handling and Planting Guidelines”, D. L. Miller and R. M. Schaefer III, Potlatch Corporation, Wood Products, Western Division, 4-25-83

A. Planting Bags.

1. Fill bags just prior to planting.
2. Moisten roots if soil mix is dry.
3. Shelter seedlings from wind and sun when filling bags.
4. Don’t pack bags tightly – seedlings should pull out easily without stripping roots.
5. Do not use gas- or oil-soaked planting bags.

B. Planting Spot Selection (Microsite).

1. Plant in soil, avoiding rock, deep duff, rotten wood and compacted soil or roads.
2. Don’t plant in standing water or in soil that was pushed on top of slash or brush.
3. Shade – Where possible, plant on the north or northeast side of logs, stumps, rocks or brush clumps. Where not possible, use small rocks, scalped sod or sticks to shade block the base of trees. Place shade on the downhill side of the tree on slopes over 25%. On more gentle terrain place shade on the south/southwest side of the tree.
4. Vegetation – Scalp clumps of brush, ferns or grass that cannot be avoided.
5. Animals – Avoid game and livestock trails. Do not plant in gopher tunnels.
6. Compaction – Avoid planting in compacted dozer or skidder tracks.
7. Avoid planting on top of mounds and in the bottom of ditches, gullies or trenches.
8. Select planting spot within 20% of tree spacing specified in Table 2 to find a better site, and do not plant in planting spots occupied by established pines or larch.
9. Any seedling or sapling with more than half of its foliage fading (yellowish to orange in color) or with dead top shall not be considered an established tree.

C. Planting Spot Preparation.

1. Ash, duff or litter – Scalp to mineral soil around planting hole.
2. Dry or blackened soil – Foot scalp to reach moist soil.

3. Grass, brush or forbs – Remove vegetation from a 1 foot square so that seedling will not come into contact with herbicide before it dries.

D. Planting.

1. Planting tools must be able to open a hole, 1 inch longer than the plug and 2 inches wide at the bottom. Roots shall not be trimmed or damaged by the contractor.

2. Open the planting hole near the center of the scalped planting spot.

3. The undisturbed side of hole will be less than 30 degrees from vertical, so roots do not lean.

4. Gently remove seedling from planting bag or container after the hole has been prepared. Do not wrench seedlings from bag. Remove one seedling at a time. Do not carry seedlings in hand while walking between holes.

5. Plug must be straight in the hole, with roots pointing downward and not bent at the bottom.

6. Do not plant trees in a leaning position; roots shall be oriented approximately perpendicular to the ground surface.

7. Do not twist the plug into the hole or compress the plug to fit a hole that should be dug deeper or wider.

8. Fill the hole from bottom to top, packing soil firmly to prevent air pockets around roots. That does not mean applying the “death stomp” is acceptable.

9. Keep snow, duff, rocks, ashes and dry soil from the planting hole.

10. Planting depth: Plant the top of the plug $\frac{1}{2}$ to $\frac{3}{4}$ inch below top of hole, so the soil surface is between the root collar and lowest needles. Soil should not be mounded around the tree to compensate for a shallow hole – dig the hole deeper.

11. Planted tree should withstand a firm tug on several needles, and soil in the root zone should not be loose or densely packed.

E. Progression through Planting Blocks.

1. The contractor shall manage planting crews to work from one edge to another through each planting block to achieve a clear distinction between planted and unplanted portions of the block. This will facilitate daily inspections, as well as acreage adjustments, if necessary.

2. If the area planted has been adjusted for any reason, it will be traversed by Tribal Forestry with a GPS unit to determine the actual acreage for payment.

F. Weather: Follow weather guidelines for planting from Cleary, B. D. et al, “Regenerating Oregon’s Forests”, 1978, Oregon State University Extension Service, Corvallis, Oregon to determine acceptable planting weather.

G. Herbicide application.

1. The contractor shall provide and apply herbicide under supervision of a Professional Applicator licensed to apply pesticides in a forested environment.

2. Handlers and workers shall have pesticide safety training as required by the Federal Worker Protection Standard.
3. A Meter-Jet calibrating spray attachment or equivalent method shall be used to treat a 5' wide spot with a tank mix of the prescribed herbicide(s), water, surfactant and dye. This is achieved with the spray nozzle held at approximately 5 feet above the ground. Holding the nozzle lower would increase the rate applied per unit area.

H. Seedling Handling, Transport and Storage at planting sites.

1. Tribal Forestry shall deliver seedlings to planting sites as scheduled by the contractor's representative.
2. Seedlings shall be protected from weather and mechanical injury during transport and storage by careful handling of boxes, protective tarps or natural shade.
3. Seedlings shall be stored in shipping boxes until ready to be planted, and in planting bags until the planting hole is prepared.
4. Seedlings left over at the end of the day may be stored overnight in shipping boxes, sheltered from sun and wind, if they will be planted the next day. If not, they shall be returned to Tribal Forestry for cold storage.
5. After completion of a planting block or group of nearby blocks, the contractor shall return any excess seedlings, in their shipping boxes, to Tribal Forestry.
6. The contractor shall take reasonable care of shipping boxes to allow them to be returned to the nursery. All other debris, including plastic bags used to package seedlings and litter from lunches shall be removed from the planting site daily.
7. If any mold, dry roots, sour roots, frozen roots or other seedling quality concerns are found by the contractor, such seedlings shall be withheld from planting until examined by Tribal Forestry.

III. INSPECTIONS AND ACCEPTANCE: Acceptance of work and payment will be based on inspections by Tribal Forestry. Daily inspections will follow the planting crew as closely as possible, and the contractor is encouraged to observe the inspections. Copies of inspection cards shall be available to the contractor on the next work day.

A. Inspection Procedures for Planting.

1. Approximately one (1) percent of each planting block will be inspected, using circular plots, 1/50 or 1/100 acre in size. Plots will be located throughout the planted area on a systematic grid from a randomly located first plot. Plot centers will be located and marked on the ground with flagging. The plot number will be written on flagging near or on plot center.
2. Above Ground: Inspectors shall check all seedlings on the plot, up to the number of planting spots available. On each plot, number of planting spots, planted trees and satisfactory trees will be recorded, considering items listed below. The planting quality card contains a column labeled "DT" for dropped trees that will displace an otherwise satisfactory tree on the closest plot. The specifications in Section II will be considered in determining satisfactory trees.

3. Below Ground: At least one seedling per plot will be checked below ground by carefully digging from the side until the roots are exposed. If a plot contains 6 or more seedlings, two trees will be dug for below ground inspection. A tree that is not satisfactory above ground will not be examined below ground. The below ground inspection is targeted at root condition, straightness of roots and planting hole and prevention of air pockets and foreign material around roots.

B. Planting Quality: Planting quality will be calculated from totals for all plots within each completed planting block to determine acceptability. Planting Quality will be the product of the proportion of total planted trees that are satisfactory above ground and the proportion of trees examined below ground that are satisfactory.

A = Total satisfactory trees (not including trees excess of planting spots),

B = Total number of planting spots,

Above ground quality = A/B .

C = Total satisfactory trees below ground,

D = Total number of trees examined below ground.

Below ground quality = C/D .

Planting quality = (Above ground quality x Below ground quality) x 100.

1. Unsatisfactory Planting: If the planting quality falls below eighty percent (80%), the contractor will be notified and ordered to improve the quality of planting. If planting quality is not improved to at least 80% within two working days, the contract may be terminated.

2. Second Inspection: If the contractor requests a second inspection of any planting block, the Tribe will inspect different plots to calculate an amended planting quality. If the amended planting quality is within 5 percentage points of the previous inspection, then the contractor shall pay the cost of the second inspection. If the second inspection amends the planting quality by more than 5 percentage points, then the Tribe shall pay the cost of both inspections.

3. Replanting will not be ordered or permitted unless the total number of planted trees recorded on inspection plots is below eighty-five percent (85%) of the total number of planting spots. In the event a planting block is replanted, a second inspection of the replanted area will be the basis for payment.

C. Inspection Procedure for Spot Spraying.

1. Approximately one (1) percent of each planting block will be inspected, using circular plots, 1/50 or 1/100 acre in size. Plots will be located throughout the planted area on a systematic grid from a randomly located first plot. Plot centers will be located and marked on the ground with flagging. The plot number will be written on flagging near or on plot center.

2. Inspectors shall check all seedlings on the plot, up to the number of planting spots available. On each plot, number of planting spots, number of planted and existing trees and satisfactory trees will be recorded. Codes normally associated with planting

quality will be disregarded. The final column labeled "NR" indicates trees in excess of the number of planting spots that were not rated and shall not be included in the "No. of Trees" column.

3. Satisfactory trees shall be those surrounded by residual dye on vegetation within the 5 feet diameter spot indicating treatment (shielded – no dye on crop tree).

4. Unsatisfactory trees include missed trees or those dyed by spray when they should have been shielded.

5. Spray quality = (total number of satisfactory trees / total number of trees) x 100.

D. Actual Acres.

1. Estimated and actual acres are based on horizontal distance.

2. Whenever the area planted is physically different than the estimated area shown in the contract, completed planting blocks shall be traversed using a global positioning system (GPS) receiver to calculate actual acreage for payment. Such differences may arise from portions that cannot be planted due to seedling shortage or site conditions, or from expansion of area planted.

3. The actual acres shall be included in the inspection report for each planting block and if different than the estimated acres, shall be used to adjust payments using the bid price per acre.

E. Penalties.

1. Wasted trees due to improper planting, seedling handling or root pruning will be deducted from payment to the contractor at the rate of thirty-five cents (\$0.35) per tree whenever they result in planting quality of less than 80%.

2. Garbage left on or near the planting block by the contractor after notification by Tribal Forestry shall result in penalties for littering in the amount of \$100.00 per offense to be deducted from payments to the contractor.

F. Acceptance and Payment.

1. Each completed planting block with planting quality of ninety percent (90%) or more shall be accepted by the Tribe for payment at 100% of the planting bid price per block.

2. Payment for any completed planting block with planting quality between eighty and ninety percent (80-90%) shall be based upon the planting quality percentage of the planting bid price per block.

3. No payment will be made for planting blocks where planting quality is less than eighty percent (80%).

4. Each completed spray block with spray quality of ninety percent (90%) or more shall be accepted by the Tribe for payment at 100% of the spot spraying bid price per block.

5. Payment for any completed spray block with spray quality between eighty and ninety percent (80-90%) shall be based upon the spray quality percentage of the spot spraying price per block.

6. No payment will be made for any spray blocks where spray quality is less than eighty percent (80%).

7. Payments for completed planting blocks and/or spray blocks shall be submitted up to twice per month upon invoice by the contractor.