

DRAFT DOCUMENT – FOR INFORMATIONAL PURPOSES ONLY – NOT OPEN FOR PROPOSALS**APPENDIX A****TECHNICAL SPECIFICATIONS FOR SERVICE WORK ITEMS****SECTION I – DESCRIPTION OF WORK:**

The purpose of the Bitterroot Front project is to address wildfire risk to the nearby communities and promote forest restoration using a wide range of tools, including tree thinning, harvest, and prescribed burning. Specifically, this project aims to:

1. Cut and remove included sawtimber as per specifications outlined in Appendix B. Subject to the need to adhere to timing restrictions, temporary developments to facilitate timber removal and subsequent obliteration, invasive weed spread prevention measures, erosion control, hazard reduction and site preparation requirements. Perform road maintenance on National Forest System roads. Complete requirements contained in Appendix B.
2. Reconstruction of National Forest system roads to specifications listed in Schedule of Items. Including post-harvest maintenance and stabilization of select roads.
3. Layout, flag, Paint and GPS Timber Removal harvest unit boundaries.
4. Determine Timber volume with cruise design, perform cruise plots, and process cruise data.

SECTION II -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 FAR clause 52.245-1 Government Property incorporated by reference in the contract.

1. Tree Marking Paint with registered tracer and material safety data sheet (refer to accountability standards listed below and in section VII Security and Accountability of tracer paint. R1 Timber Theft Prevention Plan)).
2. Sale Area Boundary Tags.

Tree Marking Paint – Security and accountability (See attachments... 2024 R1 Timber Theft Prevention Plan and FSH 2409.12, Timber Cruising Handbook, Sec 72)

Paint Security: Tree marking paint is USDA Forest Service accountable property and shall be kept secured at all times. Access to paint shall be limited to the Contractor and/or designated representative. All Government-issued paint, aerosol, and quarts shall be securely locked when stored or transported in a vehicle. Paint shall be removed from any vehicle when someone uses the vehicle other than the Contractor or designated representative to whom the tracer paint was issued. The Forest Service may inspect Contractor's security of paint and accountability records at any time. The Contractor shall notify the Government of the quantity of paint needed 3 business days prior to commencing work. The paint needed will be transferred only to the Contractor, or designated representative at the designated US Forest Service office during normal business hours. The Contractor shall maintain a daily inventory of all paint cans. All cans received, used, and returned by the Contractor must be accounted for. The inventory will be signed and submitted to the COR on a weekly basis. All aerosol paint cans will be returned to the Forest Service with all propellant discharged. All empty tracer paint containers shall be returned to the Forest Service for disposal. Paint cans shall be returned in their original box before returning to the designated Forest Service paint custodian.

SECTION III – WORK ITEMS**Mandatory Items 1a,1b,1c,1d,1e: Cut and Remove Included Timber: 2,980 Acres**

Contractor shall:

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1. Cut, skid, and remove from Contract Area all included timber as identified in Appendix B. Road maintenance is commensurate with use as identified in Appendix C.
2. Include a cutting schedule within commercial treatment units as part of the Annual Operating Schedule.
3. Follow guidelines outline in the **technical specifications table below**.
4. All activities subject to C5.12# USE OF ROADS BY CONTRACTOR included in Appendix B.
5. Contractor shall be allowed to operate in not more than **Two** Subdivisions at any time, unless approved in writing by USFS.
6. Follow Temporary Road Use permits to access included timber and haul on roads not owned by the Forest Service under the terms and conditions of the USE AGREEMENT BETWEEN FOREST SERVICE AND OWNER identified in C5.113# included in Appendix B.
7. Follow slash disposal standards as listed in Appendix B.
8. Follow temporary road construction and obliteration standards as listed in Appendix B.

Table 1 – Cutting and Removal of Included Timber. Total Unit Acres = 2,980

Subdivision	Unit Number	Timber Designations
Sharrott Salvage	All	<u>C2.38# - SPECIES DESIGNATION (SD)</u> Trees reserved from cutting have been designated by species and/or marked with a horizontal stripe of Orange paint at or above eye level, and a stump mark consisting of a horizontal stripe of Orange paint on the downhill side of the tree at ground level. Trees identified to be cut are designated by species and/or marked with a horizontal stripe of Blue paint at or above eye level, and a stump mark consisting of a horizontal stripe of Blue paint on the downhill side of the tree at ground level.
McCalla-Larson	4,10,11,12, 14,23,26,27 , 27a,33,34a, 43,43a,43b, 43c	
Fred Burr	All	
Square Tin	All	
Spoon-McCoy	All	Refer to these specifics as indicated in Appendix B.
Spoon-McCoy	54, 59	<u>C2.351# – DESIGNATION BY SPACING. (7/22)</u> Refer to these specifics as indicated in Appendix B.

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McCalla-Larson	1,2,3,4,5,6,7 8,9a,9b,10, 11,12,13,14 ,15,16,17,1 8,19,20,21, 22,23,24,28 , 28a,32,33, 34,34a,36, 37,37a,40, 41,41a,41b, 42,43,43a, 43b,43c	<u>C2.355# DESIGNATION BY PRESCRIPTION (DXP):</u> Refer to these specifics as indicated in Appendix B.
McCalla-Larson	24a,24b,25, 28b,30,31, 34	<u>C2.358# - INDIVIDUAL TREES (LEAVE TREE MARKING (LTM)):</u> Refer to these specifics as indicated in Appendix B.

Item 1a: Sharrott Salvage Subdivision: Units: 1, 1A, 1B, 1C, 2, 3, 4, 4A, 6, 8, 9, 10,11, 12, 13, 15, 17, 21, 22

Item 1b: McCalla-Larson Subdivision: Units: 1, 2, 3, 4, 5, 6, 7, 8, 9A, 9B, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 24A, 24B, 25, 26, 27, 27A, 28, 28A, 28B, 29, 30, 31, 32, 33, 34, 34A, 35, 36, 37, 37A, 40, 41, 41A, 41B, 42, 43, 43A, 43B, 43C

Item 1c: Fred Burr Subdivision: Units: 1A, 1B,1C

Item 1d: Square Tin Subdivision: Units: 1, 2, 3, 5, 6, 7, 8, 9A, 9C, 10, 13

Item 1e: Spoon McCoy Subdivision: Units: 18, 20, 21, 21A, 21B, 24, 25, 26, 27, 27A, 27B, 30, 31, 32, 32A, 32B, 32C, 32D, 32E, 33, 34, 35, 35A, 36, 36A, 36B, 37, 38, 40, 43, 44, 44A, 44B, 45,46, 47, 49, 50, 53, 54, 55, 56, 57, 58, 59, 63, 65, 66, 67, 68A, 68B, 69, 69A

Cut and remove from Contract Area sawtimber trees which meet the minimum tree specifications as identified in Appendix B.

Mandatory Item 2b, 2d,2e: Reconstruct National Forest System Roads:

1. See Appendix D, E, F, G for specifications. See G and H for Optional items

Optional Item 3c,3d,3e,3f,3g,3h,3i,3j,3k,3l,3m,3n,3o,3p,3q: Flag, Tag, GPS and Paint Boundaries (8,655 Acres)

Unit Boundary Designation:

1. Units have been determined spatially by the USFS in ArcGIS online. FS will supply contractor with shape files of units.
2. Do a preliminary survey of each unit prior to installing boundaries and notify the Contracting Officer Representative (COR) if notable differences exist in logical unit placement when compared to mapped locations on timber sale area planning map. Changes in boundary locations shall be made, if necessary, for logistics, feasibility of logging system, or resource protection. Sensitive resource exclusion areas greater than 2 acres in size should not be included regardless of their location in the unit. Significant changes outside the boundaries shown on the contract map must be approved by the COR.

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3. Forest Service will provide temporary road tentative locations on a map, project temp road construction is limited to 27 miles, therefore FS shall approve all proposed temporary road construction.
4. Layout of the project area will confirm and/or refine treatment area boundaries identified on Contract Area Maps. Minor adjustments to unit boundaries are permitted to allow for greater feasibility or other benefits to timber product removal, with approval by the COR. Areas may be excluded from final timber treatment areas if found not to be mechanically accessible for timber removal treatment per Item #1.
5. Contractor is to utilize virtual boundaries where common boundaries and boundaries along system roads occur. See attachment XXX(virtual boundary desk guide)
6. Sketch a map of each unit and include planned landings, temp roads, and critical skid trails to use. Landing locations should be planned to allow for 2,500 feet skid distance unless physical barriers exist such as streams, steep slopes, rocks, lava cap, etc. Include access to units via existing roads, reconstructed roads, or new temporary road construction and/or reopening an old temp road, using an old skid trail as a temp road, or a totally new temp road. Show locations of survey monuments, areas that can't be logged, and sensitive areas such as landslides or other areas of resource concerns such as Special Aquatic Features i.e., seeps, bogs, springs and fens. Layout cards must be submitted to FS prior to acceptance of layout.
7. Designate boundaries of all cutting units with Blue flagging at inter-visible distance, so that flagging knots face toward the unit interior, not to exceed 50 feet, prior to marking and GPSing. Designate corners with Triple flags and shared corners with quadruple flags. Virtual boundaries do not need to be flagged except for corners on system roads. Hang flags within 10 feet of the road at the most advantageous location to be seen while driving the road.
8. Identify cutting unit corners and boundary intersections with roads as follows: Write sale name, unit number, and location of corner (for example Smoky TS, Unit#100, SW Corner) with permanent marker on flagging
9. With the exception of corners, do not hang flagging along mapped system roads. GPS is required.
10. Evaluate operability of each cutting unit. Maximum slope to be included for ground-based skidding 35%, with 100-foot pitches up to 40%.
11. 100% of each harvest unit boundaries are to be GPS'd.
12. Boundaries will be recorded using approved GPS devices that can meet forest standards for error (per Forest Product Accountability Action Plan) a. Allowable Contract Tolerance = 40 Feet b. Tested Accuracy in Light-Medium Canopy = 20 Feet
13. Final GPS boundary file will be free of any slivers and/or overlaps along shared unit boundaries and must not have more than 150 feet between vertices, In accordance with FSH 2409.12 Ch. 50, "position fixes should line in order, one after another, in a sequential pattern with only slight irregularities (such as jumping from side to side). Irregularities that are obvious outliers should be deleted."
14. Submit final corrected polygon shapefiles for each treatment unit.
15. To assure acceptance, layout must be completely done (including flagging, a recreational grade GPS shapefile, and layout cards submitted) before any boundaries are painted.
16. Where required, all unit boundaries will be clearly designated using leave tree colored tracer paint.
17. Painted boundary trees will be inter-visible, will not be designated for harvest, and be of a size that will remain standing after logging and should meet leave tree criteria in prescriptions.

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18. Paint application should provide for clear and unquestionable placement of required unit boundaries. Required unit boundaries shall be designated by painting three vertical stripes, one facing into the unit and two vertical stripes (one on each side) facing along the unit boundary, at or above 4.5 feet.
19. A horizontal stump mark shall be placed at the base of the tree on the downhill side, and be 12 inches long or 1/3 of the diameter of the tree.
20. Boundary Tags will be placed on high visibility boundaries instead of vertical paint marks at locations identified by USFS. These locations include, but not limited to Trailheads, parking areas, recreation structures, etc.
21. Devices for GPSing shall meet requirements for accuracy outlined in “Chapter 50 – Area Determination” in Attachment XXX - FSM & FSH_CruiseDesign-Plan and Cruise for Final Volume Estimates c) Provide both the raw and post-processed GPS data files as well as shapefiles.
22. Notify FS upon completion of boundary designation to ensure proper time and delivery of Silviculture marking guides, Prescriptions, sample marking and any interior marking done by FS, prior to contractor cruising. Contractor shall provide a minimum of 30 days notice within Normal Operating Season for FS to complete sample and/or interior marking.

Virtual Boundaries

A Geo-Fence is a location on the ground corresponding to the boundary location shown on a mobile mapping device using a Global Positioning System (GPS) Receiver using the digital vector file/shapefile that will be approved after Items 6 and 25 are accepted.

Trees and brush to be treated is located within and not past the boundary as shown on the mobile mapping device using the digital vector file/shapefile listed above. Contractor is responsible for obtaining a GPS receiver(s) that is capable of determining the location of the true Geo-Fence within the contract tolerance. Allowable contract tolerance is **30** feet.

Forest Service inspection of treated areas to determine if mastication/cutting is within allowable contract tolerance, shall use the digital vector file/shapefile named and dated above using a GPS Receiver with a minimum, tested accuracy in a **Light-Medium** canopy of **18** feet. National Technology Development Program GPS Receiver accuracy reports by GPS manufacturer and model are available at: <https://www.fs.usda.gov/database/gps/mtdcrept/accuracy/index.htm>. Forest Service determination of boundary location will be final.

As an operational convenience and subject to written agreement by the Forest Service, in advance of marking, Contractor may mark Geo-Fence boundaries on the ground with Contractor’s non-tracer paint. Boundary trees shall not be identified with paint applied below stump height. Contractor shall bear all costs associated with painting used to visually identify boundaries. Forest Service will not approve or accept the boundaries identified on the ground by the Contractor in advance of cutting.

As an operational convenience and subject to written agreement by the Forest Service, Contractor may mark Geo-Fence boundaries on the ground with Contractor’s non-tracer paint. Boundary trees shall not be identified with paint applied below stump height. Contractor shall bear all costs associated with painting used to visually identify boundaries. Forest Service will not approve or accept the boundaries identified on the ground by the Contractor in advance of cutting.

In case of a major disruption in GPS service, or lack of GPS coverage on the Contract Area beyond the control of the Contractor, as determined by the Contracting Officer, extension of time may be granted by Contracting Officer when requested in writing by Contractor in accordance with 52.212-4 (f) Excusable Delays. To resolve major disruption of GPS service, or lack of GPS coverage on the Contract Area, the Forest Service may elect to Mark Geo-Fence boundaries on the ground, in which case the Forest Service’s determination of boundary location will be final.

DRAFT DOCUMENT – FOR INFORMATIONAL PURPOSES ONLY – NOT OPEN FOR PROPOSALS**Optional Item 4c,4d,4e,4f,4g,4h,4i,4j,4k,4l,4m4n,4o,4p4q: Volume Determination (15 Lump Sum items)**

- Cruise Design/Plan:

1. A Registered Professional Forester (RPF) is required to complete cruise designs/plans.
2. Unless otherwise stated or agreed to by the Forest Service the Cruise Design, Cruise Plan and associated data in the final cruise report shall follow directions and standards provided in Forest Service Manuals and Handbooks. Details of methodology and standards can be found in **Attachments XXX**.
3. All Cruise designs and plans will be reviewed and approved by the Forest Service prior to implementation of the cruise.
4. If it becomes necessary to modify the cruise plan after implementation has begun, the contractor shall notify the Contracting Officer and prepare an addendum to the plan that shall be approved by FS. Add the date of the addendum to the cover page of the plan. Follow the standards and guidelines in **Attachment XXX**.
5. The contractor is responsible for developing pre-cruise information for the cruise design data.
6. The cruise will be designed to achieve a maximum sampling error of 25 percent (FSH 2409.12, chapter 40). All data collected shall meet the accuracy requirements in FSH 2409.12, chapter 50 (**Attachment XXX**).

- Cruise Plots:

1. Cruisers must be supervised by a qualified RPF and have sufficient training to execute data collection to meet quality standards of the FS.
2. Cruiser will follow procedures outlined in cruise plan and take measurements in accordance with the information outlined in **Attachments XXX**.
3. All data will be kept in a consistent format and organized file structures and be supplied to FS with the final cruise report.
4. Forest Service provided paper copy cruise tally sheets will be used to record plot data and returned to FS upon completion of each subdivision cruise processing.

- Final Cruise Processing and Report:

1. National Cruise Program (NATCRS) shall be used for processing cruise data. The final cruise shall be delivered to the FS in a working CRZ file.
2. Following processing, the Forest Service will notify the Contractor if the cruise meets Maximum Sampling Errors. The contractor may take corrective action if cruise exceeds Maximum Sampling Errors. When the original cruise exceeds the desired sampling error and a small number of additional samples are needed to reduce the error to an acceptable level, the Contractor will calculate the total number of additional samples needed, locate, and measure unbiased samples in the field, and add these data to the original cruise. Corrective action and additional samples will be agreed to by Forest Service. Any additional required work due to contractor not meeting maximum sampling error shall be at the contractors expense.
3. Forest Service will conduct cruise inspections as outlined in **Attachments XXX**.

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4. Inspections will evaluate cruising procedures and monitor cruiser performance. The Forest Service will indicate when results of a sale inspection are unsatisfactory and recommend corrective action needed to make the cruise acceptable.

When Final Cruise for each Timber Treatment Area has been completed and accepted, the FS will complete an independent Timber Sale Appraisal to determine the Advertised Timber Rate and Bid Premiums to be collected according to the “Timber Appraisal and Bid Premium” notes section in the solicitation. Maps, plans, and quantities accepted by FS WILL be used for appraisal data entries to calculate logging costs.

If Advertised Timber Rates are unacceptable to Contractor for any of Items 1,2,3 indicating these Option Items cannot be awarded bilaterally, the included timber of that treatment area and any overlapping Optional service treatment units shall not be awarded. These units will be re-solicited for open competition.

SECTION IV – INSPECTION AND ACCEPTANCE

For All Work Items:

At any point during the project, the Contractor and/or Project Manager may request (documented through email, text, or hand-written request) an in the field consultation with the Forest Service to inspect work progress, review contract specifications, or clarify issues. The Forest Service shall respond to Contractor’s request within 5 working days, excluding weekends and federal holidays.

GOVERNMENT QUALITY ASSURANCE SURVEILLANCE PLAN

Government Inspection Procedures - The COR, or a designated inspector (GTM), will make periodic inspections while work is in progress, usually daily at first, as needed to assure work is proceeding satisfactorily. The Contractor shall notify the COR when units are started, when problems are encountered and when contract work needs government oversight.

1. Each unit will be inspected as a separate unit. Unit will not be averaged with other units for acceptance or payment.
2. When units are completed and ready for government inspection, Contractor’s designated Project manager shall request unit inspection in writing, prior to moving out of the general area.
3. The COR, or designated inspector, will determine compliance with contract specifications through informal visual inspections. In the event visual inspection indicates work to be in non-compliance with specifications, prompt corrective action and/or rework shall be required.

Government Inspection Procedures – Formal (Plots)

1. In the event visual inspection indicates work and / or rework to be in non-compliance with contract specifications, a series of verification plots shall be installed by the Government to determine compliance with specifications and percent of satisfactory work for treatment of each unit not meeting specification as observed with visual inspection.
2. Government verification plots will consist of a series of fixed area plots and variable radius plots along transects to record whether density, basal area, best tree selection, and other requirements are being met and to what extent.
3. Plots and grid will be distributed so that a representative sample is obtained.
4. The COR or designated inspector will mark the center of each plot on the ground using flagging, stakes, or pin flags. Additional flagging will be hung near the plot center so that it may be seen from a distance. The inspector will include the plot number, their initials and date on the flagging.
5. Plots will be numbered to correlate with the inspection form and transects on a unit map.
6. The minimum number of verification plots, per treatment unit, shall be as follows:

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7. Unit Acreage	Minimum No. of Plots
1 – 9	1 plot per 2 acres
10 – 29	10 plots
30 – 59	1 plot per 4 acres
60 – 99	20 plots
100	1 plot per 5 acres

8. Determination of acceptability of the work performed will be based on Government verification inspections and will be considered conclusive.
9. At each plot, the Government will examine the plot area and record findings on the items listed below:
 - a. Plot number
 - b. Number of trees to be left on plot.
 - c. Number of trees left on plot.
 - d. Number of satisfactory trees.
 - e. Number of deficient trees.
 - f. Number of excess trees.
 - Stumps containing live limbs which are not in accordance with specifications herein will be counted as excess trees.
 - Cut trees which are still attached at the stump will be counted as excess trees
 - Trees meeting cut specifications will be counted as excess trees
 - Trees in excess of trees to be left will be counted as excess

10. Work quality will be calculated on the form as follows:

$$\frac{\text{No. Trees Deficient} + \text{No. Excess Trees}}{\text{No. Trees to be left}} = \% \text{ Unsatisfactory work}$$
$$100\% - \% \text{ Unsatisfactory work} = \% \text{ Work Quality}$$

Unsatisfactory Cutting

1. If the work quality falls below 85 percent, the COR will immediately notify the Contractor, in writing, and order him to improve the quality of subsequent tree cutting. If the quality of subsequent tree cutting is not raised above the 85 percent minimum acceptable standard within 24 business hours after receipt of such written notice, the Contractor's right to proceed may be terminated and the contract considered in default.
2. When the work quality falls below 90 percent as a result of excess trees, the Government may elect to do one of the following:
 - (a) Order rework to be performed and withhold payment until excess trees are cut and the results of a post-rework Government inspection show work quality to be at least 85 percent or more. No rework shall be performed unless ordered or authorized by the COR.

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- (b) Order that no rework be performed and payment will either be made at a reduced rate, or not at all, as determined from the Thinning Inspection Report.
3. Repeated failure to produce work quality at or above the 85 percent minimum acceptable standard will be considered reason for contract termination and default action.

Reinspection Upon Contractor Request

1. If Government inspection results are unacceptable to the Contractor, a reinspection may be requested, in writing, within 5 business days after receipt of notice of said inspection results. The same inspection procedure will be used; however, the inspection pattern will be shifted so that new inspection plots will not overlap previously inspected plots.
2. If reinspection results – rounded up to the nearest whole percent – indicate a variance of more than 5 percent from the first inspection, the results of the second inspection will be used to calculate work quality and payment, and the Government will bear the cost of reinspection.
3. If reinspection results – rounded up to the nearest whole percent – are within 5 percent of the first inspection, plots from the initial inspection and the reinspection will be combined and used to calculate work quality and payment, and the Contractor shall bear the cost of reinspection.

Government Inspection Procedures – Items 1-7

Table 1 – Minimum Acceptable Quality Levels (AQL) of Work

ITEM	DESCRIPTION	SCHEDULE	UNIT	Min AQL
1	Cut and Remove Included Timber	MANDATORY	ACRE	NA
2	Reconstruction of National Forest System Roads	MANDATORY/ OPTIONAL	MILE	100%
3	Flag, Tag, GPS, and Paint Boundaries	OPTIONAL	ACRE	95%
4	Volume Determination	OPTIONAL	SUBDIVISION	95%
5	Cut and Remove included Timber (Ground Based)	OPTIONAL	ACRE	NA
6	Cut and Remove Included Timber (Skyline/Tethered)	OPTIONAL	ACRE	NA
7	Cut and Remove Included Timber (Helicopter)	OPTIONAL	ACRE	NA

SECTION V – PAYMENT METHODS

Method of Measurement for Acreages

Acreages were determined by using Global Positioning Systems (GPS) or digitized using GIS mapping. All mandatory units are flagged, the majority of boundaries are painted, the exception being along FS system roads.

Discernable Boundaries are boundary locations that are readily identifiable features on the ground in locations shown on the Contract Area Map. A Geo-Fence is a location on the ground corresponding to the boundary location shown on a mobile mapping device using a Global Positioning System (GPS) Receiver using a digital vector

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file/shapefile. The digital vector file/shapefile will be provided as an attachment to the Contractor by the Forest Service at award. A digital list of the coordinates can be provided upon request.

Contractor is responsible for obtaining a GPS receiver(s) that is capable of determining the location of the geo-fence boundary within the contract tolerance. Allowable contract tolerance is 30 feet.

Forest Service inspection of treatment boundaries shall be conducted to determine treatments are within the allowable contract tolerance using the digital vector file/shapefile referenced above using a GPS Receiver with a minimum, tested accuracy in a Light- Medium canopy of 20 feet.

National Technology Development Program GPS Receiver accuracy reports by GPS manufacturer and model are available at: <https://www.fs.usda.gov/database/gps/mtdcrept/accuracy/index.htm>. Forest Service determination of boundary location will be final.

In case of a major disruption in GPS service, or lack of GPS coverage on the Contract Area beyond the control of the Contractor, as determined by the Contracting Officer, extension of time may be granted by Contracting Officer when requested in writing by Contractor in accordance with 52.212-4 (f) Excusable Delays. To resolve major disruption of GPS service, or lack of GPS coverage on the Contract Area, the Forest Service may elect to Mark Geo-Fence boundaries on the ground, in which case the Forest Service's determination of boundary location will be final.

The acreage for each work item will be rounded to the nearest acre and is final unless:

- a. The contract is modified or,
- b. The Government makes a determination to remeasure or,
- c. The Contractor exercises his/her option under the following Remeasurement provisions:

Remeasurement

1. The Contractor may request, in writing, remeasurement of any units under this contract if he/she feels that acreage stated on the project maps is incorrect. The remeasurement must be within the existing perimeter of the respective unit. No variance of the unit perimeters as laid out on the ground for this contract will be allowed. All requests for remeasurement must be made prior to payment for each completed unit. Remeasurement will be performed by the Government.
2. If remeasurement indicates that a variance of ten percent or less exists on units of 1 to 5 acres, five percent or less exists on units of more than five but less than 20 acres, or if three percent or less exists on units of 20 acres or larger, the Contractor shall pay for the actual costs of the remeasurement. Under this condition, payment will be made on the acreage stated on the project maps. If the remeasurement indicates the actual acreage varies by more than the above factors from that stated on the project maps, the payment will be made on the remeasured acreage and the Forest Service will pay for the cost of the remeasurement.

Acceptance and Payment – Item 1, 5,6,7

1. If informal visual inspection indicates acceptable work quality, the Contractor will be paid 100 percent of their bid rate.
2. In the event that formal inspections are used, the rate of payment to the Contractor will be calculated as follows:
 - (a) For work quality of 95 percent or higher, 5 percent (adjustment for statistical variation) will be added and the Contractor will be paid 100 percent of their bid rate.
 - (b) For work quality from 85 to 94 percent, the 5 percent will be added to the work quality percent and the

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Contractor will be paid the total multiplied by the bid rate.

- (c) For work quality 84 percent and less, the 5 percent will not be added and there will be no payment made to the Contractor.
- (d) If, after rework, the percentage of satisfactory work is between 85% and 94%, payment will be made by the actual percentage. If the percentage is less than 85%, the work is unacceptable, and no payment will be made.

Acceptance and Payment – Item 2, 3, 4

Full payment will be made when visual and/or measurement inspection indicates specifications have been met.

SECTION VI – DEFINITIONS

ACCEPTABLE QUALITY LEVEL (AQL): Acceptance of work will be based on compliance with all specifications corresponding to the appropriate task(s). A minimum AQL is required for all service work – hand or mechanical. The minimum AQL will receive a satisfactory performance rating.

BIOMASS TREES: Any conifer material 2 feet in height to 4.9 inches DBH.

BOLE SPACING: The horizontal distance in feet from the edge of one leave tree bole to another leave tree bole, measured from the outside bark of each tree.

BROWNS TRANSECT: A line intercept method for measuring the amount of fuel on the ground.

BRUSH: Vegetation consisting of shrub species with single or multi-stems originating at or near ground level not normally reaching more than 15 feet in height.

CIRCULAR PLOT: A sample plot within a thinning unit that is used to determine the number of desirable trees and other contract specifications.

COARSE WOODY DEBRIS: Woody material left on the ground to meet wildlife habitat requirements.

CROWN RATIO: The ratio of live crown length (tip of leader to base of the crown) to total tree length/height.

CROWN SPACING: The horizontal distance in feet between the dripline of a live crown to another live crown.

CLEARCUT: A cutting prescription in which all trees within a boundary are designated to be cut.

CROWN RATIO: The ratio of live crown length (tip of leader to base of the crown) to total tree length/height.

CROWN SPACING: The horizontal distance in feet between the dripline of a live crown to another live crown.

CUT TREES: Trees that do not possess the characteristics of desirable leave trees and are required to be cut. As described by the contract or otherwise marked to be cut.

CUTTING UNIT: See Treatment Unit definition

DAMAGED TREES: Trees damaged beyond recovery. A tree that is larger than 2 feet in height, and has the top knocked out, is leaning more than 10 degrees, has less than one half of its original limbs, or has approximately 50% of bark removed from the circumference of the bole.

DBH: Diameter at breast height, measured at a point of 4.5 feet above the ground level on the uphill side of the tree.

DECKING: Stockpiling of trees in a designated area.

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DEAD/DYING TREES: Trees with the crown foliage changing from green to red, yellow, or needleless. Any tree that has pitch tubes indicating Mountain Pine Beetle infestation.

DESIGNATION BY SPECIES AND DIAMETER (DXSD): A cutting prescription in which species and diameter are used to determine which trees will be left and which will be cut.

DIB: Diameter inside bark.

HANG-UP TREE: Any cut tree suspended above ground level.

HEALTHY REGENERATION: Young, healthy, dwarf mistletoe free conifers, less than 4.9 inches in diameter, free of defect or characteristics.

LEAVE TREE: Trees that possess desirable characteristics and that serve to create the basis for designated spacing requirements or are otherwise designated to be left.

LOPPING AND/OR SCATTERING: Cutting limbs from trunks of cut trees, bucking, and moving and rearranging of slash concentrations to reduce the fuel bed height as specified.

NON-SAWTIMBER TREE: For all conifer species, minimum diameter of 5 inches DBH to minimum diameter by species identified in Appendix B, Division A.

OVERSTORY REMOVAL: A cutting prescription where all trees greater than a specified size are cut. Trees less than the specified size are protected.

PAYMENT UNIT: See Treatment Unit.

PILING: Gathering and stacking of downed wood and activity slash by hand or mechanical methods into piles constructed and located as indicated by technical specification and project maps.

PROGRESSION OF WORK: Work conducted in a progressive, workmanlike and orderly manner by the Contractor.

RESERVE CLUMPS: Groups of trees within a treatment area that are protected from cutting, may also include Individual Reserve trees.

SAWTIMBER TREE: Included timber meeting sawlog size specifications as defined in Appendix B, Division A.2.

SLASH: Woody material existing or created that has accumulated on the forest floor. Woody material includes logs, pieces of logs, tops, and branches.

UNIT: See Treatment Unit.

TEMPORARY ROADS: Non-permanent roads that are constructed by Contractor for the purpose of treatment unit access.

TREATMENT UNIT: An individual area on the ground in which activities will be performed and which may appear as a separate pay item in the Schedule of Items.

UNSATISFACTORY WORK: If work quality falls below the AQL, the COR will issue a work order or notice of noncompliance to the Contractor in writing. Untreated or unsatisfactory treated areas shall be reworked to obtain satisfactory work quality.

VIRTUAL BOUNDARY: A unit boundary that is shown on the map but is not demarcated on the ground. The contractor must use mapping applications in order to locate these boundaries in the unit.

WHOLE TREE YARDING: Whole tree logging includes cutting tree and removing the entire tree, including tops and branches, to the landing.

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WILDLIFE TREE: Standing tree marked to be reserved as a wildlife tree. Used by birds and small mammals for shelter, nesting, perching, etc.

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