



Schedule A – Silviculture Services

Attachment to the Agreement with _____. For Free-Growing, Regeneration and Forest Health Surveys throughout the Nadina Resource District, Houston/Burns Lake area.

ARTICLE 1: DEFINITIONS

1.01 In this Schedule, the following words shall have the following meanings:

- (a) **“Accredited Silvicultural Surveyor”** means a person who is registered with the Ministry of Forests, Lands, and Natural Resource Operations (MFLNRO), Forest Practices Branch as an Accredited Silvicultural Surveyor.
- (b) **“Crew”** means one person, or two or more persons working with each other in the same Opening.
- (c) **“Crop Tree Standards”** means, in the absence of Stocking Standards, regional or district guidelines which define acceptable crop tree characteristics.
- (d) **“Deliverables”** means all field data forms, summary forms, reports, plans, assessments, maps or other forms and digital files which the Contractor is required to complete under this Agreement.
- (e) **“Forest Stewardship Plan”** means a plan as set out in the *Forest and Range Practices Act*.
- (f) **“RESULTS”** means the digital Reporting Silviculture Updates and Land status Tracking System utilized by the Silvicon Services Inc. to manage forest-related information.
- (g) **“Multi-Storey Stand”** means a stand being managed for single tree selection, where the crown closure of the trees in layer 1 and 2 is greater than or equal to 6% and where layers 3 and/or 4 are present.
- (h) **“Opening”** or **“Patch”** means a Work Area identified by an Opening number or identification number.
- (i) **“Project Map or Treatment Map”** means a map produced by the Contractor according to the specifications in this Agreement. Digital maps will be geo-referenced.
- (j) **“Prescription”** means, as the context requires, a silviculture prescription, pre-harvest silviculture prescription, stand management prescription, or backlog silviculture prescription, specifying Stocking Standards, signed by a Qualified Forest Professional and approved by a licensee and a district manager, or a site plan specifying approved Stocking Standards, signed and sealed by a Qualified Forest Professional.
- (k) **“Qualified Forest Professional”** means a person registered and in good standing with the Association of BC Forest Professionals (ABCFP), having the required scope of practise, education, knowledge, expertise, and experience to practise the specific aspects of professional forestry set out in this Agreement.
- (l) **“Silviculture Survey Procedures Manual”** means the manual developed and produced by Silvicon Services Inc. as a reference for methodology, data collection, and compilation for silviculture surveys, as amended from time to time.
- (m) **“Silviculture Treatment Recommendation”** means a logical, biologically sound, cost effective recommendation, based on survey results and anticipated stand development, which specifies the

year and season during which any such Survey and/or treatment should take place.

- (n) **“Stratification Criteria”** means the criteria set out in this Agreement, the *Silviculture Survey Procedures Manual*, and as specified by the Ministry of Forest, Lands and Natural Resource Operations.
- (o) **“Stocking Standards”** means the site-specific legal requirements that are slated in the approved Prescription, and any applicable standards to a silviculture Survey contained in an approved “Forest Development Plan” or “Forest Stewardship Plan”. The stocking standards used will include balsam as either preferred or acceptable (similar to approved BBR standards found in RESULTS). Germinant will be tallied as a separate layer.
- (p) **“Stratum”** means a Survey area for which the boundaries are determined by the Stratification Criteria specified in the Agreement for the type of Survey referenced.
- (q) **“Survey”** means, as the context requires, a stocking, plant ability, free-growing, reconnaissance or visual survey as those surveys are set out in the *Silviculture Survey Procedures Manual* and includes the collection and analysis of field data, and provision to Silvicon Services Inc. of all forms, maps, reports and Silviculture Treatment Recommendations required by this Agreement.
- (r) **“Standards Unit”** means one or more parts of the cut block(s) for which part or parts there is only one of each of the following: soil disturbance limits, regeneration date, Stocking Standard, free-growing date, free-growing height for each species that contribute to establishing a free-growing stand on the cut block.

1.02 If any words in the Agreement are used in this Schedule, they have the same meaning in this document unless the context dictates otherwise.

ARTICLE 2: KEY PERSONNEL

2.01 The following are Key Personnel who will fill the following roles:

Role or Function	Name of Person/ Phone #/email Address	Qualifications – Professional/Technical Designation and/or Experience
Project Supervisor	(Insert required info)	Successful management of a similarly sized and complex project*, Accredited Silviculture Surveyor*, minimum of three (3) years completing silviculture surveys in the Province of British Columbia in the last six (6) years.
Crew Leader	(Insert required info)	Accredited Silviculture Surveyor*, minimum one (1) year completing silviculture surveys in the Province of British Columbia in the last three (3) years*.
Qualified Forest Professional – sign & seal Survey reports	(Insert required info)	Qualified Forest Professional, at least three (3) years in the past four (4) years completing declarations in the Province of British Columbia.

***indicates a minimum mandatory requirement**

2.02 The Contractor shall ensure that:

- (a) all personnel have familiarized themselves with those available silviculture treatment options that Silvicon Services Inc. considers feasible for the Work Area.
- (b) each Crew engaged in the execution of the Work includes at least one Crew Leader;
- (c) at least 25% of the surveyors are Accredited Silviculture Surveyors or registered Professional Foresters;
- (d) all Surveys are signed and sealed by a Qualified Forest Professional that the Work has been completed in accordance with the methodologies set out in the Silviculture Survey Procedures Manual, the standards set out in the Prescription, and the conditions in this Agreement;
- (e) All regeneration and/or free-growing declarations are signed and sealed by a Qualified Forest Professional to confirm that Standard Unit (s) has achieved the prescribed requirements.

2.03 The Contractor will provide a sufficient number of persons with minimum mandatory professional or technical designation to fulfill the roles of Key Personnel to complete the obligations of this Agreement.

2.04 Addition, replacement, or exchange of Key Personnel listed above must be pre-approved by Silvicon Services Inc. Notice of changes to Key Personnel must be provided to the Silvicon Services Inc. representative in writing, and, upon approval by Silvicon Services Inc., shall form part of this Agreement.

2.05 In the event that Key Personnel require replacement, the Contractor will be provided with the opportunity to replace the individual(s) within a time frame acceptable to the Silvicon Services Inc. This timeframe will be provided in writing.

2.06 The Silvicon Services Inc. representative will be **Jay Baker**

2.07 The Contractor Representative will be _____

ARTICLE 3: INFORMATION AND MATERIALS FURNISHED BY SILVICON SERVICES INC.

Silvicon Services Inc. shall make available to the Contractor, as required and where available, the following resources material, or property (the "Property") at no cost to the Contractor for the duration of the Agreement: information is available as attached below.

3.01 Silvicon Services Inc, retains ownership of the Property and hereby grants to the Contractor non-exclusive, non-transferable access to use the Property for the sole purpose of completing the Works required under this Agreement. The Contractor shall be solely responsible for any loss or damage to the Property and any costs required repairing or replacing the Property to the satisfaction of Silvicon Services Inc., excepting always loss or damage attributable to reasonable wear and tear.

3.02 The Contractor shall, at its own expense, return the Property to Silvicon Services Inc. immediately following the completion or termination of this Agreement.

Access

3.03 Silvicon Services Inc. is not responsible for the quality or type of access to any Work Area within this Contract. Silvicon Services Inc. is not liable for any access costs incurred by the Contractor.

ARTICLE 4: WORK PROGRESS PLAN AND MEETINGS

Work Progress Plan

4.01 Reporting to the contract administrator on the survey findings will be on a weekly basis. Timely reporting as the survey work progresses is especially important where physical site treatment is recommended.

- 4.02 A Work Progress Plan shall be developed prior to the commencement of the Work, outlining the scope, timing, location and other requirements of the Work. The Work Progress Plan will provide for the orderly completion of the Work, and may be replaced and/or revised as planning evolves and conditions and priorities change.
- 4.03 Where the Silvicon Services Inc. Representative requests the Contractor submit, as part of the Work Progress Plan, a map detailing the Contractor's proposed Survey design for any Opening, the Contractor shall have two (2) Work Days within which to comply with such requests, and the field work may not commence on the specified Opening until the Silvicon Services Inc. Representative gives written approval of the design.

Scheduled Meetings

- 4.04 A schedule for meetings between the Contractor and the Silvicon Services Inc. Representative will be set out in the Work Progress Plan. Meetings may include topics such as work progress, production rates, quality of work, accomplishment of milestones, Deliverables due, and issues discovered during field work, schedule for remaining work, and any other discussion items related to the effective and satisfactory completion of the Work.
- 4.05 The Contractor shall, at its own expense, attend all scheduled meetings. Failure of the Contractor to attend a scheduled meeting will be considered non-compliance with the Agreement.
- 4.06 Documentation of each meeting, including but not limited to meeting date, time, location, attendees, content of meeting, and outcomes of discussions will be kept by Silvicon Services Inc. A copy of the documentation will be provided to each Party.

ARTICLE 5: STANDARDS OF PERFORMANCE ALL SURVEYS

General

- 5.01 Unless otherwise specified, the Contractor shall conduct Surveys, develop Silviculture Treatment Recommendations, and complete reports in accordance with and to the standards set out in the following documents, as amended from time to time. It should be noted that it is encouraged to assess these blocks from the air; this contract does not specifically require ground assessments in order to make a declaration.
- General Standards for Ministry Funded Programs, located at http://www.for.gov.bc.ca/ftp/hfp/external!/publish/fft_standards_on_cms_web/CommonStandards/General/FS1001.pdf
 - the approved Prescription for the Opening;
 - Results Submissions Specifications, located at: <http://www.for.gov.bc.ca/hfp/publications/00220/resultssubmission.pdf>
 - Silviculture Survey Procedures Manual - located at http://www.for.gov.bc.ca/hfp/silviculture/Surveys/SilvicultureSurveyProceduresManual_April_1_2010.pdf
 - Site Index by Ecological Classification Estimates/ Approximations located at <http://www.for.gov.bc.ca/hre/sibec/>
 - Establishment to Free Growing Guidebook - located at <http://www.for.gov.bc.ca/tasb/legsregs/fpc/FPCGUIDE/Guidetoc.htm>
- 5.02 The Contractor represents and warrants that they are familiar with and understand the following documents, as amended from time to time. In relation to the Works required under this Agreement, relevant documents include, but are not limited to:
- Forest and Range Practices Act and corresponding Regulations, located at <http://www.for.gov.bc.ca/mof/acts.htm>

- Forest Cover Stratification and Milestone Declaration V1.4, August 14, 2007, located at http://www.for.gov.bc.ca/hfp/silviculture/Stratification%20and%20Milestone%20Regulation%20Examples_v1%204.pdf
- Silviculture Prescription Data Collection Field Handbook, Land Management Handbook 47, 2000 – located at <http://www.for.gov.bc.ca/hfd/pubs/Docs/Lmh/Lmh47.htm>

- 5.03 Where the Contractor determines a Prescription is not suitable for an Opening, the Contractor shall provide recommendations for changes with rationale and map(s) where applicable to the Silvicon Services Inc. Representative.
- 5.04 Contract schedules attached to the Operational and General Services contract may reference further documents not outlined above that are relevant to the performance of the Work under this Agreement.

Identification of Strata

- 5.05 Unless otherwise specified in this Schedule, the Contractor will stratify the Work Area(s) as set out in the Preliminary Stratification and Field Stratification sections of the Silviculture Survey Procedures Manual.
- 5.06 Minimum Stratum size will be as set out in the approved FSP. Where no minimum Stratum size is specified within an approved FSP, the minimum Stratum size will be as set out in the Forest Cover Stratification and Milestone Declaration V1.4.

Required Documentation

- 5.07 Where Silvicon Services Inc. provides the Contractor with sample templates for Work submissions, the sample will be the minimum acceptable standard for the Deliverables produced by the Contractor.
- 5.08 Where the Contractor collects, summarizes, or represents Survey data or results using computerized means, the display, content and format of the information shall be in a form acceptable to Silvicon Services Inc. and its respective procedural requirements, and shall only be acceptable to Silvicon Services Inc. if the Silvicon Services Inc. Representative has given prior written approval. All maps will be geo-referenced, including PDF maps.
- 5.09 Summary reports will include representation on an ESRI shape file, google earth file, and excel spreadsheet. Standard Units will be colour coded to represent groups, such as FG, SR, and NSR, brushing, planting and fill-planting. All block details and findings will be attached to each SU, even in the google earth file – so that they will show up when right-clicking on it in google earth for example.

Marking Lines and Plots

- 5.10 If established, to assist the Silvicon Services Inc. Representative in locating the plot centres, the Contractor shall:
- a) mark the Point of Commencement (P.O.C.) with flagging tape on which the Contractor shall write, in waterproof ink:
 - Initials of surveyor(s)
 - the P.O.C. number (as appropriate);
 - the date of Survey;
 - the licence, cutting permit, and block numbers, or Opening number;
 - the type of Survey conducted; and
 - The direction and distance to the first plot.
 - b) Mark the baseline (if established) and all strip lines with flagging tape on which the Contractor shall write the baseline and stripline number (as appropriate) in waterproof ink. Where handheld global positioning system (GPS) units are used to determine Universal Transverse Mercator (UTM) coordinates of plot centre locations, marking of baseline(s) and strip line(s) is not required.

- c) If plots are established, mark the plot centres by affixing flagging tape to the ground and at a height of approximately 1.3 meters above each plot centre, on which the Contractor shall write in waterproof ink:
- the plot number and strip line (if applicable);
 - the surveyor's initials; and
 - the bearing and distance to next plot.

Damage and Condition (Forest Health) Assessment

5.11 For each Stratum, the Contractor shall examine the general health status within the Stratum, and record:

- (a) the type of pest, disease, or damage present;
- (b) the type of pest, disease, or damage; the severity of damage and the percent of total trees; percentage of total conifers and percent of the host trees affected including the percentage of the area of the Stratum affected;
- (c) the type of pest, disease, or damage present by means of the "Standard Pest Identification Codes" specified on the "Damage Agent and Condition Code" reference form (FS 747);
- (d) the pest, disease, or damage information in the appropriate column of the field data forms; and
- (e) a summary of the pest, disease, and damage information in the Silviculture Treatment Recommendations and summary section of the FS659.

Brush Hazard Assessment

5.12 The Contractor shall examine each Stratum for any brush hazard which may be present and record the general status of the brush hazard within the Stratum, including:

- (a) the estimated percentage of brush cover;
- (b) average brush height in centimetres;
- (c) current brush severity using the following codes:
- HIGH** – brush currently is, and will continue to:
- significantly impact crop tree vigour, as evidenced by crop tree mortality, poor crop tree growth, and/or unacceptable crop tree form; or
 - prevent the Stratum from achieving the free-growing Stocking Standards and requirements.
- MED** – brush is moderately impacting, or will increasingly affect:
- crop tree vigour, as evidenced by decreasing crop tree growth, or decreasing crop tree to brush height ratio; or,
 - the Stratum's ability to achieve the free-growing Stocking Standards and requirements in the future;
- LOW** – brush is having little impact on crop tree vigour, is not likely to cause future impacts and is unlikely to prevent the Stratum from achieving free-growing Stocking Standards and requirements.
- NIL** – no brush hazard present.
- (d) current brush distribution:
- CONTINUOUS** - brush covers large portions of the Stratum
PATCHY– brush covers small patches within the Stratum
SCATTERED – brush is randomly distributed in small clumps or individual plants
- (e) the estimated incremental growth of competing vegetation, based on site productivity.

Photography

- 5.13 Unless otherwise specified in writing by the Silvicon Services Inc. Representative, the Contractor shall provide to Silvicon Services Inc. at least one (1) colour digital photograph showing representative portions and overview of each Stratum of each Opening. Additionally, the Contractor shall provide to Silvicon Services Inc. at least one (1) colour digital photograph showing a representative well-spaced crop tree for each Stratum of each Opening. The photo will have the following information superimposed on it: date, coordinates, cardinal direction, plot and opening number.
- 5.14 Notwithstanding other remedies available to it, where the Contractor fails to produce suitable photograph(s), Silvicon Services Inc. reserves the right to charge an assessment against payment equal to the estimated cost of obtaining such photograph(s).

Forest Cover Inventory Label and Silviculture Label

- 5.15 The Contractor shall complete and submit a forest cover inventory label and silviculture label for each Stratum resulting from the Survey, as specified in the Silviculture Survey Procedures Manual and the RESULTS Information Submission Specifications – Form and Manner of Reporting - Licensee Submissions (Edition 3a) located at http://www.for.gov.bc.ca/his/results/RISS_Is_3a_ed_Oct1.pdf , via the approved information management system as directed by the Silvicon Services Inc. Representative.

Project and Treatment Maps

- 5.16 The Contractor shall:
- (a) prepare a Project Map to the following specifications for each Opening surveyed;
 - (b) prepare a Treatment Map to the following specifications for each Opening surveyed where future treatments are recommended based on the Survey results;
 - (c) unless otherwise specified in this Schedule, draft the Project and Treatment Maps at a scale of 1:10,000 and to commonly accepted mapping standards;
 - (d) ensure Project and Treatment Maps detail the following:
 - date of Survey;
 - Opening number;
 - licence, cutting permit, and block numbers;
 - unique block identifier (UBI) number;
 - scale;
 - legend identifying line types and symbols used on the map;
 - Opening boundary, based on latest satellite or air photo imagery;
 - roads and landings;
 - creeks and streams;
 - identification of each Stratum;
 - identification of each Standards Unit ;
 - aerial photograph tie points (if applicable);
 - access notes;
 - forest cover inventory label and silviculture label (including well-spaced and free growing trees per hectare) for each Stratum;
 - types outside the Opening boundary;
 - Adjacent opening outlines;
 - North arrow; and
 - draught person's name and date of draughting.
 - (e) ensure all Project and Treatment Maps submitted to Silvicon Services Inc. are originals, both digital

(geo-referenced) and paper, not photocopies;

(f) ensure that, in addition to the requirements as outlined in 5.16 (d) of this Schedule, Project Maps also detail the following:

- point of commencement (P.O.C);
- Survey lines with numbers and direction travelled;
- identification of each ecosystem site series;
- Opening and Stratum areas;
- photograph ground point location and direction of image; and
- type of Survey;

Allowable Errors in Measurement

5.17 The Contractor shall record Survey information accurately within the following allowable errors:

Item	Allowable Error
(a) P.O.C.	± 10 metres
(b) All bearings	± 2 degrees
(c) All plot centres and tie points	± 2% of horizontal distance (HD)
(d) Plot radius	± 1% of HD
(e) Closed traverse	± 1% error of closure
(f) Estimated tree heights:	
• under 2 metres	± 10 centimetres
• 2 metres to 10 metres	± 10 %
• greater than 10 metres	± 20%
(g) Measured tree heights	± 5%
(h) Estimated tree diameters	± 20% (rounded to the nearest whole cm)
(i) Estimated stand age	± 20%
(j) Site index	± 3 metres (for Growth Intercept Method)
(k) Stratum area in hectares	± 10%
(l) Number of well-spaced trees, free growing trees	± 10%
(m) Number of plantable spots, preparable spots	± 10%
(n) Number of total trees, total conifers, or countable conifers	± 20%
(o) Forest health factors	± 10% absolute difference of incidence (e.g. 2% vs 12% of incidence)

ARTICLE 6: STANDARDS OF PERFORMANCE FOR SAMPLE PLOT SURVEYS - STOCKING, FREE GROWING AND PLANTABILITY SURVEYS

6.01 The following additional standards of performance shall apply, where the Work requires the Contractor to conduct a sample plot Survey for stocking, free growing, or plantability.

Objectives:

6.02 The objectives of plot Surveys are:

- (a) to determine the stocking and/or free growing levels existing within each Opening;
- (b) to determine the number of plantable spots that exist within each Opening;
- (c) to quantify stocking, free growing, and/or plant ability levels for each Stratum within the Opening to accepted statistical requirements;
- (d) to identify limiting factors that may prevent maintenance of appropriate stocking levels or achievement of required free-growing stocking levels;
- (e) to delineate areas where further treatments may be necessary; and
- (f) to recommend treatments necessary to maintain or achieve appropriate stocking and/or free growing levels.

Sampling Specifications

6.03 The Contractor shall establish circular sample plots which have a radius of 3.99 metres (0.005 hectares), unless otherwise specified in writing by the Silvicon Services Inc. Representative.

6.04 The Contractor shall use either grid or vector sampling methods as set out in the Silviculture Survey Procedures Manual to establish sample plots throughout the Work Area.

6.05 For Surveys with even-aged Stocking Standards, the Contractor shall establish in each Stratum sample plots at a sampling intensity that will accurately represent each identified Stratum and will provide for statistical analysis to determine the stocking or free growing status in accordance with the methodology set out in the Statistics section of the Silviculture Survey Procedures Manual.

6.06 For Surveys with uneven-aged or multi-storey Stocking Standards, or for plantability Surveys, the Contractor shall establish the greater of one (1) plot per hectare or five (5) plots in each Stratum.

Field Data Forms

6.07 The Contractor shall record Survey information on the appropriate "Silviculture Survey" and "Silviculture Survey Plot" forms (FS657 and FS658). Where Survey data or results are summarized or represented using computerized or other electronic means, the display, content, and format of the information must substantially duplicate the corresponding Silvicon Services Inc. forms (specifically the FS657, FS658, and FS659) and its respective procedural requirements, and be useable on Silvicon Services Inc. equipment, once approved by the Silvicon Services Inc. Representative.

Crop Tree Acceptability Criteria

6.08 All coniferous and deciduous trees will be tallied in the total tree count, including germinants. If initial tally exceeds 35 per 3.99 meter plot radius plot, this count can be an estimate. Total conifer count will be tallied for all conifers including germinants.

6.09 Trees of preferred and acceptable species are eligible for selection as well-spaced crop trees if they are greater than ten (10) centimeters in height.

6.10 Where the Stocking Standards do not indicate a minimum inter-tree distance, the Contractor will use a minimum inter-tree distance of two (2) meters.

Brush Hazard Assessment

- 6.11 Where required, the Contractor shall examine each Stratum for any brush hazard which may be present and record the status of brush species within the Stratum:
- (a) for plots in each Stratum with a HIGH brush severity code, record on the field cards, the species, percent cover, and height of competing vegetation at each plot within that Stratum;
 - (b) for plots in each Stratum with a MED, LOW, or NIL brush severity code, record on the field cards, at the first and every fourth sample plot thereafter, the species, percent cover, and height of competing vegetation;
 - (c) A summary of the brush hazard assessment information in the Survey Summary section of the appropriate form.

Site Index Methodology

6.12 Site Index must be collected following the procedural hierarchy guidelines outlined in *Selecting a Method to Estimate Site Index 2006, Land Management Handbook, Field Guide Insert 12* unless otherwise specified by the Silvicon Services Inc. Representative.

Plantability Data

6.13 Unless otherwise specified in writing by the Silvicon Services Inc. Representative, the Contractor shall record the number of plantable spots and preparable spots as described in the *Silviculture Survey Procedures Manual*.

Survey Summary Forms and Silviculture Treatment Recommendations

6.14 The Contractor shall complete a “Silviculture Survey Summary” form (FS659), or computerized summary acceptable to the Silvicon Services Inc. Representative, for each Stratum that summarizes all information recorded on the field survey forms and to specify Silviculture Treatment Recommendations for the Stratum.

Project Maps

6.15 In addition to the requirements outlined in 5.16 of this Schedule, the Contractor shall detail the plot centers on all Project Maps numbered and coded as follows:

<u>WELL SPACED TREES</u>	<u>CODE</u>	<u>COLOUR</u>
Below MSS (NSR)	○ (Circle)	Red
At or above MSS (SR)	△ (Triangle)	Green
FG Plot	□ (Square)	Blue

Deliverables

6.16 The Contractor shall deliver to the Silvicon Services Inc. all Deliverables set out in the Agreement.

6.17 The Contractor shall prepare, in accordance with the requirements set out in the Agreement, and provide to the Silvicon Services Inc. for each Opening the following geo-referenced products.

Free-Growing, Regeneration and Forest Health Survey List of Deliverables	# of Originals	Digital Deliverable Format
1. All original field data and summary forms	1	PDF
2. Project Map	1	PDF
3. Treatment Map where future treatments are recommended	1	PDF
4. Survey Report, signed and sealed by Qualified Forest Professional	1	JPEG
5. Colour photograph for each Stratum (may be incorporated into report)	1	PDF
6. Recommendations for amendment to Prescriptions, as applicable, with rationale and map(s)	1	PDF
7. Where not satisfactorily restocked (NSR) or critical non-free growing areas are identified within an Opening, a field map, recommendation, and statistics for the Opening within ten (10) Work Days of completion of a Survey.	1	PDF
8. Where a Standards Unit has reached regeneration or free growing standards, a declaration letter signed by a Qualified Forest Professional.	1	PDF
9. An all-inclusive digital summary of all survey findings and recommendations. Each block, when selected ("clicked on") will display its individual properties and findings.	3	Excel, Google Earth, and Shapefile
10. Enter survey findings and recommendations into government database RESULTS, including spatial data that is correct, based on field findings and latest available satellite or air photo imagery.	1	Electronic

ARTICLE 7: Deleted to avoid duplication and confusion

ARTICLE 8: Deleted to avoid duplication and confusion

ARTICLE 9: INSPECTION AND ACCEPTANCE

In addition to Article 11 and Article 13 of the Operational Services Contract, the following is applicable.

Contractor Request for Inspection and Acceptance

- 9.01 The Contractor shall provide to Silvicon Services Inc., at the time the Contractor submits the request to Silvicon Services Inc. to inspect and accept the Work within a completed Payment Area, copies of the completed Deliverables as specified in this Agreement.

Method of Inspection

- 9.02 If the Deliverables are satisfactory, Silvicon Services Inc. shall conduct a reconnaissance of the Payment Area to carry out a preliminary assessment of the quality of the Work.
- 9.03 If, after any reconnaissance, Silvicon Services Inc. decides, in its discretion, to conduct field inspections of the corresponding Payment Area, it shall inspect 10% or more of the Payment Area to determine compliance with the terms and conditions of this Agreement.
- 9.04 Silvicon Services Inc. will provide the Contractor with a copy of the inspection of the Deliverables and the preliminary assessment, and/or field inspection within ten (10) working day of the date of the inspection so that the Contractor is notified in a timely manner as to:
- (a) whether to proceed to the next activity or phase of Work; and/or
 - (b) Any deficiencies or non-compliance with the Agreement.

Field Inspection

- 9.05 Silvicon Services Inc. may conduct field inspections for all Surveys by checking, at its discretion, the results of all plots and lines established by the Contractor on a portion of the Payment Area or by establishing an independent survey of some of the Strata within the Payment Area.
- 9.06 Where Silvicon Services Inc. checks the results of actual plots established by the Contractor in an Opening, it shall inspect the greater of ten (10) plots established or 10% of plots established, and Silvicon Services Inc. shall assess and compare the data it obtains with that collected by the Contractor for the same plots and, at a minimum, the following Survey results:
- (a) Well-spaced trees by species;
 - (b) Free-growing trees;
 - (c) Plantable spots, preparable spots
 - (d) Total trees;
 - (e) Brush hazard; and
 - (f) Forest health factors

In addition, the Silvicon Services Inc. may assess other Survey information for allowable error tolerances listed in Clause 5.17 of this Schedule

Provision of Field Maps

- 9.08 Silvicon Services Inc. may request that the Contractor provide it with copies of Survey cards and field maps for any Stratum surveyed, and the Contractor shall supply the copies within a reasonable time period as agreed to by Silvicon Services Inc. Representative.
- 9.09 For the purpose of this request, a field map shall include, Standards Unit boundaries, stratification lines, point of commencement, Survey lines and if applicable, plot location.

ARTICLE 10: TABLE OF ASSESSMENTS

- 10.01 As per the Operational Services Contract, where, in the opinion of Silvicon Services Inc., the Contractor has failed to perform or comply with any of its obligations under this Agreement, but is subsequently completed, Silvicon Services Inc. may, in its sole discretion, impose an assessment as agreed liquidated damages as follows:

<u>Obligation and Issue</u>	<u>Assessment Rate</u>
No work will be paid for if not completed	Prorated from bid price
Failure to complete all field work on or before December 1 st .	\$200 per day late
Failure to supply critical non-FG field findings (see 6.17(7)) within 10 days of field findings.	\$10 per day late per block
Failure to complete works by the completion date specified in a Notice to the Contractor for any re-work.	\$500 per day late
Failure to replace Key Personnel within required timeframe.	\$200 per day late
Failure to attend a scheduled meeting.	\$100 per meeting
Failure to enter spatial or non-spatial survey findings and declarations into the Province's tracking system RESULTS.	penalty of \$300 per Standard Unit

ARTICLE 11: PAYMENT

Basic Payment

- 11.01 Payment for each Payment Area shall be based on the rates set out in Schedule 'B'.

Payment Reductions

- 11.02 Silvicon Services Inc. may deduct from any payment the amount of any charges it assesses against the Contractor pursuant to Article 10.00 of this Schedule.

Approval of Payment

- 11.03 Silvicon Services Inc. shall approve payment for any Payment Area where the Contractor has, in the sole opinion of Silvicon Services Inc., satisfactorily completed and submitted all Deliverables and

Silviculture Treatment Recommendations required for the Payment Area. Silvicon Services Inc. may approve partial payment for achievement of specified milestones as set out in the Work Progress Plan. All payments are subject to a 20% holdback for a 40 day period.

ARTICLE 12: NON-COMPLIANCE AND TERMINATION

Unsatisfactory Work Quality

12.01 For the purpose of Clause 12.02 of this Schedule, unsatisfactory work quality means instances where:

- (a) the Contractor makes errors in measurement that exceed the allowable errors specified in this Schedule;
- (b) the Contractor fails to stratify an Opening according to the Stratification Criteria;
- (c) the Contractor incorrectly identifies the biogeoclimatic zone, sub-zone, site series (ecosystem association) for a Stratum;
- (d) the Contractor incorrectly identifies preferred or acceptable tree species as permitted under the Stocking Standards for the Stratum;
- (e) the Contractor incorrectly identifies the order of the leading species and secondary species in the inventory label for a Stratum;
- (f) the Contractor incorrectly identifies the stocking status for a Stratum [e.g., a satisfactorily restocked (SR) Stratum identified as not satisfactorily restocked (NSR)];
- (g) Silvicon Services Inc. conducts an independent survey within a Stratum and determines that (at the 95% confidence level) the Contractor's and the Silvicon Services Inc.'s estimates of the number of well-spaced or free-growing trees are drawn from different populations;
- (h) the Contractor fails to report a brush hazard that will, in the opinion of Silvicon Services Inc., prevent the stand from attaining a free growing condition within the time specified in the standards;
- (i) the Contractor fails to report any pest, pest damage, disease, disease damage or other physical damage which is present in the Opening; or,
- (j) The Contractor submits Deliverables that are illegible, incomplete, contains errors or omissions, or that are false.

12.02 In addition to the remedies specified in the Operational Services Contract, if the Contractor's Work quality is unsatisfactory:

- (a) Silvicon Services Inc. shall promptly notify the Contractor, and
- (b) The notice shall:
 - i. specify the fault, give the Contractor a deadline for compliance, and specify if Silvicon Services Inc. wishes to exercise its option to require the Contractor to rework the unsatisfactory Payment Area; or,
 - ii. Specify the fault, indicate that Silvicon Services Inc. will exercise its option to correct the unsatisfactory work, and deduct from payment all direct and indirect costs incurred by Silvicon Services Inc. for correcting the unsatisfactory work.

12.03 If the Contractor fails to comply by the specified deadline for compliance, or if any inspection of further Work indicates that Work is again unsatisfactory, Silvicon Services Inc. may terminate this Agreement forthwith.

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