SALE LOCATION: Sale located approximately 21 miles east of Mount Vernon, WA.

CERTIFICATION: This sale is certified under the Sustainable Forestry Initiative ${ }^{\circledR}$ program Standard (cert no: BVC-SFIFM-018227)

## ESTIMATED SALE VOLUMES AND QUALITY:

| Species | Avg Ring |  | Total MBF | MBF by Grade |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | DBH |  |  | 1P | 2 P | 3 P | SM | 1S | 2S | 3S | 4S | UT |
| Douglas fir | 17.6 | 7 | 2,766 |  |  |  |  |  | 1,277 | 1,261 | 196 | 32 |
| Hemlock | 12.9 |  | 517 |  |  |  |  |  | 38 | 368 | 89 | 22 |
| Red alder | 13.3 |  | 300 |  |  |  |  |  | 18 | 74 | 208 |  |
| Cottonwood | 16.3 |  | 25 |  |  |  |  |  | 25 |  |  |  |
| Maple | 10.5 |  | 4 |  |  |  |  |  |  |  | 3 | 1 |
| Redcedar | 13 |  | 4 |  |  |  |  |  |  | 4 |  |  |
| Sale Total |  |  | 3,616 |  |  |  |  |  |  |  |  |  |

MINIMUM BID:
$\$ 1,015,000.00$
BID METHOD: Sealed Bids

PERFORMANCE
SECURITY: $\quad \$ 100,000.00$ SALE TYPE: Lump Sum
$\$ 101,500.00$ or Bid Bond. Said deposit shall constitute an opening bid at the appraised price.

HARVEST METHOD: Cable OR tethered equipment (See below for restrictions); shovel, " 6 -wheeled rubbertired skidders with over-the-tire tracks spanning both sets of rear tires" (See below for restrictions), tracked skidder or rubber-tired skidder on sustained slopes $35 \%$ or less; selfleveling equipment on sustained slopes $50 \%$ or less (See below for restrictions).

Prior written approval of the Contract Administrator is required before tethered or selfleveling equipment may be used. If ground disturbance is causing excessive damage, as determined by the Contract Administrator, the use of this equipment will no longer be authorized.

Purchaser must obtain prior written approval from the Contract Administrator for areas as to where " 6 wheeled rubber tired skidders with over-the-tire tracks spanning both sets of rear tires" can operate. If ground disturbance is causing excessive damage, as determined by the Contract Administrator, the equipment will no longer be authorized. Falling and Yarding will not be permitted from November 1 to March 31 unless authorized in writing by the Contract Administrator to reduce soil damage and erosion.

ROADS:
42.96 stations of required construction. 42.52 stations of required reconstruction. 29.31 stations of optional construction. 19.54 stations of optional reconstruction. 110.81 stations of required prehaul maintenance. 31.29 stations of abandonment. 36.01 stations of abandonment, if built.

Installation of a $66^{\prime \prime}$ pipe arch at station $264+60$ of the CN-ML Road.
Rock may be obtained from the following sources on State land at no charge to the Purchaser: Acquisition Pit at station 5+00 of the LK-14 Road. Foothill Pit at station $61+09$ of the CN-47 Road. Crane Creek Pit at station $16+68$ of the CN-2006 Road.

Development of existing rock sources will involve drilling, shooting, and processing rock to generate riprap, ballast and stream sim rock.

An estimated total quantity of rock needed for this proposal: 438 cubic yards of riprap, 15,685 cubic yards of ballast, and 20 cubic yards of stream sim rock.

Additional restrictions apply, see Remarks section below.
All activities are restricted on the $\mathrm{CN}-54$ Road from October 1 to June 15. This shall not be waived. On all other roads, road work and the hauling of rock will not be permitted from November 1 to March 31 unless authorized in writing by the Contract Administrator to reduce soil damage and siltation. The hauling of forest products will not be permitted from November 1 to March 31 unless authorized in writing by the Contract Administrator to reduce soil damage and siltation.

## ACREAGE DETERMINATION

CRUISE METHOD: Acres determined by GPS traverse. Cruise was conducted via variable plot sample type. See Cruise Narrative for further details. Shapefiles of units are available upon request, and on the DNR website after the BNR meeting in which the sale is presented.

## natural resources

TIMBER NOTICE OF SALE

FEES:
$\$ 61,472.00$ is due on day of sale. $\$ 9.00$ per MBF is due upon removal. These are in addition to the bid price.

SPECIAL REMARKS: 1. Fish culvert installation work on the CN-ML Road is restricted from October 1 to July 14. This work is listed as required prehaul maintenance, but the DNR will consider a request from the purchaser (per section 1-1 of the road plan) for this work to be performed as post-haul maintenance.
2. All activities are restricted on the $\mathrm{CN}-54$ Road from October 1 to June 15. This shall not be waived.

TIMBER SALE MAP


TIMBER SALE MAP


TIMBER SALE MAP

$122^{\circ} 75^{\prime} \mathrm{W}$
$122^{\circ} 6.5^{\prime} \mathrm{W}$

| ' / Sale Area | 参 | Leave Tree Area < $1 / 4$-acre |
| :---: | :---: | :---: |
| W Leave Tree Area | K | Rock Pit |
| R Riparian Mgt Zone | $\sim \sim$ | Sale Boundary Tags |
| 1-3䱈 Forested Wetland | $\square$ | Stream Type |
| $\cdots$ Wetland Mgt Zone | * | Stream Type Break |
| Existing Roads |  |  |
| -- Optional Construction |  |  |
| Stream Type |  |  |
| * Stream Type Break |  |  |

DRIVING MAP


Timber Sale Unit
Haul Route
Other Road
Highway
Milepost Markers
Bridge
$\bullet \quad$ Distance Indicator
$\bullet$ Gate (F1-3)
$0 —$ Gate Installation
R Rock Pit

## DRIVING DIRECTIONS:

From the junction of Highway 20 and Highway 9 in Sedro-Woolley, travel south 11.6 miles on Highway 9 to Lake Cavanaugh Road. Travel east on Lake Cavanaugh Road for 9.1 miles to the LK-ML gate.
Acquisition Pit - Follow LK-ML for 1.4 miles, continue on the LK-14 road 0.1 miles to Acquisition Pit.
Unit 1 - From the LK-ML gate, follow the LK-ML 1.7 miles to Unit 1.
Foothill Pit - Leaving the CN-ML, follow the CN-47 road for 1.1 miles to the Pit. Unit 2 - From Unit 1 continue 1.0 miles on the LK-ML to the CN-ML, turn left and follow the CN-ML 0.1 Miles to the CN-54 road. Follow the CN-54 road 0.3 miles to Unit 2.
Unit 3 - From the junction of the LK-ML and CN-ML follow the CN-ML west for 1.8 miles. Crane Creek Pit - From unit 3 travel 1.3 miles west, turn onto the $\mathrm{CN}-20$ road, follow for 0.5 miles, turn onto the CN-2006 for 0.2 miles to arrive at the pit.

# STATE OF WASHINGTON DEPARTMENT OF NATURAL RESOURCES 

## BILL OF SALE AND CONTRACT FOR FOREST PRODUCTS

Export Restricted Lump Sum AGREEMENT NO. 30-0104686

SALE NAME: SARUS

## THE STATE OF WASHINGTON DEPARTMENT OF NATURAL RESOURCES, HEREINAFTER ACTING SOLELY, IN ITS PROPRIETARY CAPACITY, STATE, AND PURCHASER, AGREE AS FOLLOWS:

Section G: General Terms
G-001 Definitions
The following definitions apply throughout this contract;
Bill of Sale and Contract for Forest Products: Contract between the Purchaser and the State, which sets forth the procedures and obligations of the Purchaser in exchange for the right to remove forest products from the sale area. The Bill of Sale and Contract for Forest Products may include a Road Plan for any road construction or reconstruction, where applicable.

Contract Administrator: Region Manager's designee responsible for assuring that the contractual obligations of the Purchaser are met.

Forest Product: Any material derived from the forest for commercial use.
Purchaser: The company or individual that has entered into a Bill of Sale and Contract for Forest Products with the State for the right to harvest and remove forest products from the timber sale area.

Road Construction: Includes building new and maintaining existing forest roads and associated work that may be optional or required as described in the Road Plan.

State: The Washington State Department of Natural Resources, landowner and seller of Forest Products from the timber sale area. The State is represented by the Region Manager as designated on the contract signature page. Contractual obligations to the State are enforced by the Region Manager or the designated Contract Administrator.

Subcontractor: Individual or company employed by the Purchaser to perform a portion or all of the services required by The Bill of Sale and Contract for Forest Products. The Purchaser is responsible for independently negotiating, procuring and paying for all subcontracted services rendered.

G-011 Right to Remove Forest Products and Contract Area
Purchaser was the successful bidder on June 12, 2024 and the sale was confirmed on _. The State, as owner, agrees to sell to Purchaser, and Purchaser agrees to purchase as much of the following forest products as can be cut and removed during the term of this contract: All timber bounded by white timber sale boundary tags, adjacent young stands, and the LK-ML and CN-47 roads, except cedar salvage (cedar snags, preexisting dead and down cedar trees and cedar logs), trees marked with blue paint on the bole and root collar, and forest products tagged out by yellow leave tree area tags in Unit \#1 (collectively labeled 1A, 1B and 1C).

All timber bounded by white timber sale boundary tags and the CN-54 Road, except cedar salvage (cedar snags, preexisting dead and down cedar trees and cedar logs), trees marked with blue paint on the bole and root collar, and forest products tagged out by yellow leave tree area tags in Unit \#2 (collectively labeled 2A, 2 B and 2 C ).

All timber bounded by white timber sale boundary tags, except cedar salvage (cedar snags, preexisting dead and down cedar trees and cedar logs), trees marked with blue paint on the bole and root collar, and forest products tagged out by yellow leave tree area tags in Unit \#3.

All timber bounded by orange right-of-way tags and the LK-14 Road.
All timber bounded by orange right-of-way tags and all timber within 30 feet of centerline of roads to be constructed.

All forest products described above located on approximately 119 acres on part(s) of Sections 19, 20, 21, 28, 29, and 30 all in Township 33 North, Range 6 East, Section 24 in Township 33 North, Range 5 East W.M. in Skagit County(s) as designated on the sale area and as shown on the attached timber sale map.

All forest products described above from the bole of the tree that meet or exceed 2 inches diameter inside bark on the small end are eligible for removal. Above ground components of a tree that remain as by-products after the manufacture of logs,
including but not limited to tree tops, branches, limbs, needles, leaves, stumps, are not eligible for removal under the terms of this contract.

Forest products purchased under a contract that is designated as export restricted shall not be exported until processed. Forest products purchased under a contract that is designated as exportable may be exported prior to processing.

G-020 Inspection By Purchaser
Purchaser hereby warrants to the State that they have had an opportunity to fully inspect the sale area and the forest products being sold. Purchaser further warrants to the State that they enter this contract based solely upon their own judgment of the value of the forest products, formed after their own examination and inspection of both the timber sale area and the forest products being sold. Purchaser also warrants to the State that they enter this contract without any reliance upon the volume estimates, acreage estimates, appraisals, pre-bid documentation, or any other representations by the State Department of Natural Resources.
G-031 Contract Term
Purchaser shall complete all work required by this contract prior to March 31, 2027.
G-040 Contract Term Adjustment - No Payment
Purchaser may request an adjustment in the contract term. A claim must be submitted in writing and received by the State within 30 days after the start of interruption or delay. The claim must also indicate the actual or anticipated length of interruption or delay. The State may grant an adjustment without charge only if the cause for contract term adjustment is beyond Purchaser's control. The cause must be one of the following and the adjustment may be granted only if operations or planned operations under this contract are actually interrupted or delayed:
a. Road and bridge failures which deny access.
b. Access road closures imposed by road owner.
c. Excessive suspensions as provided in clause G-220.
d. Regulatory actions not arising from Purchaser's failure to comply with this contract which will prevent timber harvest for a period less than 6 months.
G-051 Contract Term Extension - Payment
Extensions of this contract term may be granted only if, in the judgment of the State, Purchaser is acting in good faith and is endeavoring to remove the forest products conveyed. The term of this contract may be extended for a reasonable time by the State if all of the following conditions are satisfied:
a. A written request for extension of the contract term must be received prior to the expiration date of the contract.
b. Completion of all required roads and compliance with all contract and regulatory requirements.
c. For the first extension, not to exceed 1 year, payment of at least 25 percent of the total contract price.

For the second extension, not to exceed 1 year, payment of at least 90 percent of the total contract price.

The payments shall not include the initial deposit which shall be held according to the provisions of RCW 79.15.100.
d. Payment of an amount based on 12 percent interest per annum on the unpaid portion of the total contract price.

All payments, except the initial deposit, will be deducted from the total contract price to determine the unpaid portion of the contract.
e. Payment of $\$ 813.00$ per acre per annum for the acres on which an operating release has not been issued in the sale area.
f. In no event will the extension charge be less than $\$ 200.00$.
g. Extension payments are non-refundable.

G-053 Surveys - Sensitive, Threatened, Endangered Species
Whenever the State determines that a survey for sensitive, threatened, or endangered species is prudent, or when Purchaser determines a survey is prudent and the State agrees, Purchaser shall perform such surveys at Purchaser's expense and to the standards required by the State. The survey information shall be supplied to the State.

G-060 Exclusion of Warranties
The PARTIES AGREE that the IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE and ALL OTHER WARRANTIES EXPRESSED OR IMPLIED ARE EXCLUDED from this transaction and shall not apply to the goods sold. For example, THE FOLLOWING SPECIFIC MATTERS ARE NOT WARRANTED, and are EXCLUDED from this transaction:
a. The MERCHANTABILITY of the forest products. The use of the term "merchantable" in any document is not intended to vary the foregoing.
b. The CONDITION of the forest products. The forest products will be conveyed "AS IS."
c. The ACREAGE contained within any sale area. Any acreage descriptions appearing in the timber notice of sale, timber sale contract, or other documents
are estimates only, provided solely for administrative and identification purposes.
d. The VOLUME, QUALITY, OR GRADE of the forest products. The State neither warrants nor limits the amount of timber to be harvested. The descriptions of the forest products to be conveyed are estimates only, made solely for administrative and identification purposes.
e. The CORRECTNESS OF ANY SOIL OR SURFACE CONDITIONS, PRESALE CONSTRUCTION APPRAISALS, INVESTIGATIONS, AND ALL OTHER PRE-BID DOCUMENTS PREPARED BY OR FOR THE STATE. These documents have been prepared for the State's appraisal purposes only.
f. THAT THE SALE AREA IS FREE FROM THREATENED OR ENDANGERED SPECIES or their habitat. The State is not responsible for any interference with forestry operations that result from the presence of any threatened or endangered species, or the presence of their habitat, within the sale area.
g. THAT THE FORESTRY OPERATIONS to be performed under this contract WILL BE FREE FROM REGULATORY ACTIONS by governmental agencies. The State is not responsible for actions to enforce regulatory laws, such as the Washington Forest Practices Act (chapter 76.09 RCW), taken by the Department of Natural Resources or any other agency that may affect the operability of this timber sale.
h. Items contained in any other documents prepared for or by the State.

G-061 Inadvertent Discovery of Cultural Resources
Purchaser acknowledges that cultural resources as defined in WAC 222-16-010 may exist within the timber sale area and that the existence and location of such resources may be unknown at the time this contract is executed. Purchaser has a duty to exercise due care in its operations and in the event any human skeletal remains are discovered by the Purchaser or the State during the course of operations Purchaser shall immediately halt operations and notify local law enforcement in the most expeditious manner possible then notifying the Contract Administrator. In the event cultural resources are discovered by the Purchaser or the State during the course of operations Purchaser shall immediately halt operations and notify the Contract Administrator. Any potential resources shall not be removed or disturbed. Purchaser shall resume operations as directed in writing by the Contract Administrator.

G-062 Habitat Conservation Plan
The State has entered into a Habitat Conservation Plan (HCP) with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service (the Services) to address state trust land management issues relating to compliance with the Federal Endangered Species Act. The activities to be carried out under this contract are located within the State's HCP area and are subject to the terms and conditions of the HCP, and the

Services' Incidental Take Permit Nos. TE812521-1 and 1168 (collectively referred to as ITP), or as amended hereafter by the Services. The ITP authorizes the incidental take of certain federally listed threatened and endangered species, as specified in the ITP conditions. All HCP materials, including the ITP, are available for review at the State's Regional Offices and the administrative headquarters in Olympia, Washington.

By signing this contract, Purchaser agrees to comply with the terms and conditions of the ITP, and the HCP, which shall become terms of this contract. The State agrees to authorize the lawful activities of the Purchaser carried out pursuant to this contract, PROVIDED the Purchaser remains in compliance with the terms and conditions of both the HCP and ITP. The requirements set forth in this contract are intended to comply with the terms and conditions of the HCP and ITP. Accordingly, non-compliance with the terms and conditions of the HCP and ITP will render the authorization provided in this paragraph void, be deemed a breach of the contract and may subject Purchaser to liability for violation of the Endangered Species Act.

Any modifications to the contract shall be proposed in writing by Purchaser, shall continue to meet the terms and conditions of the HCP and ITP, and shall require the prior written approval of the Region Manager before taking effect.
Incidental Take Permit Notification Requirements
a. Purchaser shall immediately notify the Contract Administrator of new locations of permit species covered by the Incidental Take Permits (ITP) that are discovered within the area covered by the State's Habitat Conservation Plan (HCP), including, but not limited to: locations of occupied murrelet habitat; spotted owl nest sites; wolves; grizzly bears; nests, communal roosts, or feeding concentrations of bald eagles; peregrine falcon nests; Columbian white-tailed deer; Aleutian Canada geese; Oregon silverspot butterflies; and additional stream reaches found to contain bull trout. Purchaser is required to notify the Contract Administrator upon discovery of any fish species found in streams or bodies of water classified as non-fish bearing. In all circumstances, notification must occur within a 24 hour time period.
b. Upon locating any live, dead, injured, or sick specimens of any permit species covered by the ITP, Purchaser shall immediately notify the Contract Administrator. Purchaser shall notify the Contract Administrator if there is any doubt as to the identification of a discovered permit species. Purchaser may be required to take certain actions to help the Contract Administrator safeguard the well-being of any live, injured or sick specimens of any permit species discovered, until the proper disposition of such specimens can be determined by the Contract Administrator. Any such requirements will be explained to Purchaser by the Contract Administrator during the Pre-Work Conference. In all circumstances, notification must occur within a 24 hour time period.
c. Purchaser shall refer to a specific ITP number, ITP TE812521-1 or ITP 1168 (copies which are located in the region office) in all correspondence and reports concerning permit activities.
d. Provisions and requirements of the ITP shall be clearly presented and explained to Purchaser by Contract Administrator during the Pre-Work Conference as per contract clause G-330. All applicable provisions of the ITP and this schedule must be presented and clearly explained by Purchaser to all authorized officers, employees, contractors, or agents of Purchaser conducting authorized activities in the timber sale area. Any questions Purchaser may have about the ITP should be directed to the Contract Administrator.

G-064 Permits
Purchaser is responsible for obtaining any permits not already obtained by the State that relate to Purchaser's operation. Forest Practice Application / Hydraulic Project Approval permits obtained by the State shall be transferred to Purchaser. Purchaser is responsible for all permits, amendments and renewals.

G-065 Regulatory Disclaimer
The State disclaims any responsibility for, or liability relating to, regulatory actions by any government agency, including actions pursuant to the Forest Practices Act, Ch. 76.09 RCW that may affect the operability of the timber sale.

G-066 Governmental Regulatory Actions
a. Risk

Purchaser shall be responsible for any increased operational costs arising from any applicable foreign or domestic governmental regulation or order that does not cause contract performance to become commercially impracticable or that does not substantially frustrate the purpose of the contract. If impracticability or frustration results from Purchaser's failure to comply with this contract, Purchaser shall remain responsible for payment of the total contract price notwithstanding the impracticability or frustration.
b. Sale Area

When portions of the sale area become subject to a foreign or domestic governmental regulation or order that will likely prevent timber harvest for a period that will exceed the expiration date of this contract, and Purchaser has complied with this contract, the following shall apply:
i. RCW 79.15.140 shall govern all adjustments to the contract area.
c. Adjustment of Price

The State shall adjust the total contract price by subtracting from the total contract price an amount determined in the following manner: The State shall
cause the timber sale area subject to governmental regulation or order to be measured. The State shall calculate the percentage of the total sale area subject to the governmental regulation or order. The State shall reduce the total contract price by that calculated percentage. However, variations in species, value, costs, or other items pertaining to the affected sale area will be analyzed and included in the adjustment if deemed appropriate by the State. The State will further reduce the total contract price by the reasonable cost of unamortized roads Purchaser constructed but was unable to fully use for removing timber. A reduction in total contract price terminates all of the Purchaser's rights to purchase and remove the timber and all other interest in the affected sale area.

G-070 Limitation on Damage
In the event of a breach of any provision of this contract by the State, the exclusive remedy available to Purchaser will be limited to a return of the initial deposit, unapplied payments, and credit for unamortized improvements made by Purchaser. The State shall not be liable for any damages, whether direct, incidental or consequential.
G-080 Scope of State Advice
No advice by any agent, employee, or representative of the State regarding the method or manner of performing shall constitute a representation or warranty that said method, manner or result thereof will conform to the contract or be suitable for Purchaser's purposes under the contract. Purchaser's reliance on any State advice regarding the method or manner of performance shall not relieve Purchaser of any risk or obligation under the contract. Purchaser retains the final responsibility for its operations under this contract and State shall not be liable for any injuries resulting from Purchaser's reliance on any State advice regarding the method or manner of performance.

G-091 Sale Area Adjustment
The Parties may agree to adjustments in the sale area boundary. The cumulative changes to the sale area during the term of the contract shall not exceed more than four percent of the original sale area. If the sale area is increased, the added forest products become a part of this contract. The State shall determine the volume added and shall calculate the increase to the total contract price using the rates set forth in clause G-101, $\mathrm{G}-102$, or G-103. If the sale area is reduced, the State shall determine the volume to be reduced. The State shall calculate the reduction to the total contract price using the rates set forth in clause G-101, G-102, or G-103.
G-101 Forest Products Not Designated
Any forest products not designated for removal, which must be removed in the course of operations authorized by the State, shall be approved and designated by the Contract Administrator. Added forest products become a part of this contract and the Scribner $\log$ scale volume, as defined by the Northwest Log Rules Advisory Group, shall be determined by the Contract Administrator. Added forest products shall be paid for at the following contract payment rates per Mbf Scribner log scale.

| Contract | Appraised <br> Price | Overbid <br> Factor | Price | Fees | Contract <br> Payment Rate |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Cottonwood | $\$ 81.59$ | 0 | $\$ 0.00$ | $\$ 9.00$ | $\$ 9.00$ |
| Douglas fir | $\$ 300.11$ | 0 | $\$ 0.00$ | $\$ 9.00$ | $\$ 9.00$ |
| Hemlock | $\$ 209.09$ | 0 | $\$ 0.00$ | $\$ 9.00$ | $\$ 9.00$ |
| Maple | $\$ 132.58$ | 0 | $\$ 0.00$ | $\$ 9.00$ | $\$ 9.00$ |
| Red alder | $\$ 240.29$ | 0 | $\$ 0.00$ | $\$ 9.00$ | $\$ 9.00$ |
| Redcedar | $\$ 537.75$ | 0 | $\$ 0.00$ | $\$ 9.00$ | $\$ 9.00$ |
| Other | $\$ 297.92$ | 0 | $\$ 0.00$ | $\$ 9.00$ | $\$ 9.00$ |

G-106 Adding Naturally Damaged Forest Products
Any forest products not designated for removal that are seriously damaged by disease, insects or wind, or that may contribute seriously to the spread of insect or disease damage may be added to this sale by the State's Contract Administrator. Additions must be in unlogged areas of the sale and added volume shall not exceed an amount equal to 10 percent of the original advertised volume. Added forest products become a part of this contract and shall be paid for at the rate set forth in clause G-101, G-102 or G-103.

G-111 Title and Risk of Loss
Title to the forest products under this contract passes to the Purchaser after they are removed from the sale area, if adequate advance payment or payment security has been provided to the State under this contract. Purchaser bears all risk of loss of, or damage to, and has an insurable interest in, the forest products described in this contract from the time the sale is confirmed under RCW 79.15.120. Breach of this contract shall have no effect on this provision.
G-116 Sustainable Forestry Initiative ${ }^{\circledR}$ (SFI®) Certification
Forest products purchased under this contract are certified as being in conformance with the Sustainable Forestry Initiative 2022 Forest Management Standard under certificate number: BVC-SFIFM-018227.

Purchaser shall have at least one person regularly on-site during active operations that have completed training according to the requirements outlined within the SFI Standard. Purchaser shall designate in writing the name(s) of the individual(s) who will be on-site and provide proof of their successful completion of an approved training program prior to active operations.
G-120 Responsibility for Work
All work, equipment, and materials necessary to perform this contract shall be the responsibility of Purchaser. Any damage to improvements, except as provided in clause G-121 or unless the State issues an operating release pursuant to clause G-280, shall be repaired promptly to the satisfaction of the State and at Purchaser's expense.

## G-121 Exceptions

Exceptions to Purchaser's responsibility in clause G-120 shall be limited exclusively to the following. These exceptions shall not apply where road damage occurs due to

Purchaser's failure to take reasonable precautions or to exercise sound forest engineering and construction practices.

The State will bear the cost to repair damages caused by a third party. In all other cases, the Purchaser shall bear responsibility for the costs as described below.

Road is defined as the road bed, including but not limited to its component parts, such as cut and fill slopes, subgrade, ditches, culverts, bridges, and cattle guards.

For the purposes of this clause, damage will be identified by the State and is defined as:

1. Failure of (a) required improvements or roads designated in clause C-050, or (b) required or optional construction completed to the point that authorization to haul has been issued;
2. Caused by a single event from forces beyond the control of Purchaser, its employees, agents, or invitees, including independent contractors; and
3. Includes, but is not limited to natural disasters such as earthquakes, volcanic eruptions, landslides, and floods.

The repair work identified by the State shall be promptly completed by Purchaser at an agreed price. The State may elect to accomplish repairs by means of State-provided resources.

For each event, Purchaser shall be solely responsible for the initial $\$ 5,000$ in repairs. For repairs in excess of $\$ 5,000$, the parties shall share equally the portion of costs between $\$ 5,000$ and $\$ 15,000$. The State shall be solely responsible for the portion of the cost of repairs that exceed $\$ 15,000$.

Nothing contained in clauses G-120 and G-121 shall be construed as relieving Purchaser of responsibility for, or damage resulting from, Purchaser's operations or negligence, nor shall Purchaser be relieved from full responsibility for making good any defective work or materials. Authorization to haul does not warrant that Purchaser built roads are free from material defect and the State may require additional work, at Purchasers expense regardless of cost, to remedy deficiencies at any time.

## Indemnity

To the fullest extent permitted by law, Purchaser shall indemnify, defend and hold harmless State, agencies of State and all officials, agents and employees of State, from and against all claims arising out of or resulting from the performance of the contract. "Claim" as used in this contract means any financial loss, claim, suit, action, damage, or expense, including but not limited to attorneys' fees, attributable for bodily injury, sickness, disease or death, or injury to or destruction of tangible property including loss of use resulting therefrom. Purchasers' obligations to indemnify, defend, and hold harmless includes any claim by Purchasers' agents, employees, representatives, or any subcontractor or its employees. Purchaser expressly agrees to indemnify, defend, and
hold harmless State for any claim arising out of or incident to Purchasers' or any subcontractors' performance or failure to perform the contract. Purchasers' obligation to indemnify, defend, and hold harmless State shall not be eliminated or reduced by any actual or alleged concurrent negligence of State or its agents, agencies, employees and officials. Purchaser waives its immunity under Title 51 RCW to the extent it is required to indemnify, defend and hold harmless State and its agencies, officials, agents or employees.

G-150 Insurance
Purchaser shall, at its cost and expense, buy and maintain insurance of the types and amounts listed below. Failure to buy and maintain the required insurance may result in a breach and/or termination of the contract at State's option. State may suspend Purchaser operations until required insurance has been secured.

All insurance and surety bonds should be issued by companies admitted to do business within the State of Washington and have a rating of A-, Class VII or better in the most recently published edition of Best's Reports. If an insurer is not admitted, all insurance policies and procedures for issuing the insurance policies must comply with Chapter 48.15 RCW and 284-15 WAC.

The State of Washington, Department of Natural Resources region office of sale origin shall be provided written notice before cancellation or non-renewal of any insurance referred to therein, in accord with the following specifications:

1. Insurers subject to Chapter 48.18 RCW (admitted and regulated by the Insurance Commissioner): The insurer shall give the State 45 days advance notice of cancellation or non-renewal. If cancellation is due to non-payment of premium, the State shall be given 10 days advance notice of cancellation.
2. Insurers subject to Chapter 48.15 RCW (surplus lines): The State shall be given 20 days advance notice of cancellation. If cancellation is due to nonpayment of premium, the State shall be given 10 days advance notice of cancellation.

Before starting work, Purchaser shall furnish State of Washington, Department of Natural Resources with a certificate(s) of insurance, executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements specified in the contract. Insurance coverage shall be obtained by the Purchaser prior to operations commencing and continually maintained in full force until all contract obligations have been satisfied or an operating release has been signed by the State.

Purchaser shall include all subcontractors as insured under all required insurance policies, or shall furnish separate certificates of insurance and endorsements for each subcontractor. Subcontractor(s) must comply fully with all insurance requirements stated herein. Failure of subcontractor(s) to comply with insurance requirements does not limit Purchaser's liability or responsibility.

The State of Washington, Department of Natural Resources, its elected and appointed officials, agents and employees shall be named as an additional insured via endorsement on all general liability, excess, umbrella, and property insurance policies.

All insurance provided in compliance with this contract shall be primary as to any other insurance or self-insurance programs afforded to or maintained by State. Purchaser waives all rights against State for recovery of damages to the extent these damages are covered by general liability or umbrella insurance maintained pursuant to this contract.

By requiring insurance herein, State does not represent that coverage and limits will be adequate to protect Purchaser and such coverage and limits shall not limit Purchaser's liability under the indemnities and reimbursements granted to State in this contract.

The limits of insurance, which may be increased as deemed necessary by State of Washington, Department of Natural Resources, shall not be less than as follows:

Commercial General Liability (CGL) Insurance. Purchaser shall maintain general liability (CGL) insurance, and, if necessary, commercial umbrella insurance with a limit of not less than $\$ 1,000,000.00$ per each occurrence. If such CGL insurance contains aggregate limits, the General Aggregate limit shall be at least twice the "each occurrence" limit. CGL insurance shall have products-completed operations aggregate limit of at least two times the "each occurrence" limit. CGL coverage shall include a Logging and Lumbering Endorsement (i.e. Logger's Broad-Form) to cover the events that include, but are not limited to, fire suppression expenses, accidental timber trespasses, and wildfire property damage with limits of not less than $\$ 2,000,000.00$ each occurrence.

CGL insurance shall be written on Insurance Services Office (ISO) occurrence form CG 0001 (or a substitute form providing equivalent coverage). All insurance shall cover liability arising out of premises, operations, independent contractors, products completed operations, personal injury and advertising injury, and liability assumed under an insured contract (including the tort liability of another party assumed in a business contract), and contain separation of insured (cross liability) condition.

Employer's Liability "Stop Gap" Insurance. Purchaser shall buy employers liability insurance, and, if necessary, commercial umbrella liability insurance with limits not less than $\$ 1,000,000.00$ each accident for bodily injury by accident or $\$ 1,000,000.00$ each employee for bodily injury by disease.

Workers' Compensation Coverage. Purchaser shall comply with all State of Washington workers' compensation statutes and regulations. Workers' compensation coverage shall be provided for all employees of Purchaser and employees of any subcontractor or sub-subcontractor. Coverage shall include bodily injury (including death) by accident or disease, which exists out of or in connection with the performance of this contract. Except as prohibited by law, Purchaser waives all rights of subrogation against State for recovery of damages to the extent they are covered by workers'
compensation, employer's liability, commercial general liability, or commercial umbrella liability insurance.

If Purchaser, subcontractor or sub-subcontractor fails to comply with all State of Washington workers' compensation statutes and regulations and State incurs fines or is required by law to provide benefits to or obtain coverage for such employees, Purchaser shall indemnify State. Indemnity shall include all fines, payment of benefits to Purchaser or subcontractor employees, or their heirs or legal representatives, and the cost of effecting coverage on behalf of such employees.

Business Auto Policy (BAP). Purchaser shall maintain business auto liability and, if necessary, commercial umbrella liability insurance with a limit not less than $\$ 1,000,000.00$ per accident. Such insurance shall cover liability arising out of "Any Auto". Business auto coverage shall be written on ISO form CA 0001 , or substitute liability form providing equivalent coverage. If necessary the policy shall be endorsed to provide contractual liability coverage and cover a "covered pollution cost or expense" as provided in the 1990 or later editions of CA 0001 . Purchaser waives all rights against State for the recovery of damages to the extent they are covered by business auto liability or commercial umbrella liability insurance.

Agents
The State's rights and duties will be exercised by the Region Manager at Sedro Woolley, Washington. The Region Manager will notify Purchaser in writing who is responsible for administering the contract. The Region Manager has sole authority to waive, modify, or amend the terms of this contract in the manner prescribed in clause G-180. No agent, employee, or representative of the State has any authority to bind the State to any affirmation, representation, or warranty concerning the forest products conveyed beyond the terms of this contract.

Purchaser is required to have a person on site during all operations who is authorized to receive instructions and notices from the State. Purchaser shall inform the State in writing who is authorized to receive instructions and notices from the State, and any limits to this person's authority.
G-170 Assignment and Delegation
No rights or interest in this contract shall be assigned by Purchaser without prior written permission of the State. Any attempted assignment shall be void and ineffective for all purposes unless made in conformity with this paragraph. Purchaser may perform any duty through a delegate, but Purchaser is not thereby relieved of any duty to perform or any liability. Any assignee or delegate shall be bound by the terms of the contract in the same manner as Purchaser.

## Modifications

Waivers, modifications, or amendments of the terms of this contract must be in writing signed by Purchaser and the State.

G-190 Contract Complete
This contract is the final expression of the Parties' agreement. There are no understandings, agreements, or representations, expressed or implied, which are not specified in this contract.

## Violation of Contract

a. If Purchaser violates any provision of this contract, the Contract Administrator, by written notice, may suspend those operations in violation. If the violation is capable of being remedied, Purchaser has 30 days after receipt of a suspension notice to remedy the violation. If the violation cannot be remedied (such as a violation of WAC 240-15-015) or Purchaser fails to remedy the violation within 30 days after receipt of a suspension notice, the State may terminate the rights of Purchaser under this contract and collect damages.
b. If the contract expires pursuant to clause G-030 or G-031 without Purchaser having performed all its duties under this contract, Purchaser's right to operate is terminated and Purchaser shall not have the right to remedy the breach. This provision shall not relieve Purchaser of any payment obligations.
c. The State has the right to remedy the breach in the absence of any indicated attempt by Purchaser or if Purchaser is unable, as determined by the State, to remedy the breach. Any expense incurred by the State shall be charged to Purchaser and shall be paid within 30 days of receipt of billing.
d. If Purchaser's violation is a result of a failure to make a payment when due, in addition to $a$. and $b$. above, interest shall accrue on the unpaid balance at 12 percent per annum, beginning the date payment was due.
State Suspends Operations
The Contract Administrator may suspend any operation of Purchaser under this contract when the State is suffering, or there is a reasonable expectation the State will suffer environmental, monetary, or other damage if the operation is allowed to continue.

Purchaser shall be in breach of this contract if the operation continues after the suspension notice or if the operation resumes without prior approval and notice from the Contract Administrator.

Purchaser may request a modification of a suspension within 30 days of the start of suspension through the dispute resolution process in clause G-240. If this process results in a finding that the suspension exceeded the time reasonably necessary to stop or prevent damage to the State, Purchaser is entitled to request a contract term adjustment under clause G-040.

If it reasonably appears that the damage that the State is suffering, or can reasonably be expected to suffer if the operation is allowed to continue, will prevent harvest for a period that will exceed 6 months, and Purchaser has complied with this contract, the provisions of clause G-066 shall govern just as if the harvest was prevented by an applicable foreign or domestic governmental regulation or order.
G-230 Unauthorized Activity
Any cutting, removal, or damage of forest products by Purchaser, its employees, agents, or invitees, including independent contractors, in a manner inconsistent with the terms of this contract or State law, is unauthorized. Such activity may subject Purchaser to liability for triple the value of said forest products under RCW 79.02.320 or RCW 79.02.300 and may result in prosecution under RCW 79.02.330 or other applicable statutes.
G-240 Dispute Resolution
The following procedures apply in the event of a dispute regarding interpretation or administration of this contract and the parties agree that these procedures must be followed before a lawsuit can be initiated.
a. In the event of a dispute, Purchaser must make a written request to the Region Manager for resolution prior to seeking other relief.
b. The Region Manager will issue a written decision on Purchaser's request within ten business days.
c. Within ten business days of receipt of the Region Manager's decision, Purchaser may make a written request for resolution to the Deputy Supervisor - Uplands of the Department of Natural Resources.
d. Unless otherwise agreed, a conference will be held by the Deputy Supervisor Uplands within 30 calendar days of the receipt of Purchaser's request for review of the Region Manager's written decision. Purchaser and the Region Manager will have an opportunity to present their positions. The Deputy Supervisor - Uplands will issue a decision within a reasonable time of being presented with both Parties' positions.

G-250 Compliance with All Laws
Purchaser shall comply with all applicable statutes, regulations and laws, including, but not limited to; chapter 27.53 RCW, chapter 68.50 RCW, WAC 240-15 and WAC 29654. Failure to comply may result in forfeiture of this contract.

G-260 Venue
This contract shall be governed by the laws of the State of Washington. In the event of a lawsuit involving this contract, venue shall be proper only in Thurston County Superior Court.
G-270 Equipment Left on State Land
All equipment owned or in the possession of Purchaser, its employees, agents, or invitees, including independent contractors, shall be removed from the sale area and other State land by the termination date of this contract. Equipment remaining unclaimed on State land 60 days after the expiration of the contract period is subject to disposition as provided by law. Purchaser shall pay to the State all costs of moving, storing, and disposing of such equipment. The State shall not be responsible for any damages to or loss of the equipment or damage caused by the moving, storing or disposal of the equipment.
G-280 Operating Release
An operating release is a written document, signed by the State and Purchaser, indicating that Purchaser has been relieved of certain rights or responsibilities with regard to the entire or a portion of the timber sales contract. Purchaser and State may agree to an operating release for this sale, or portion of this sale, prior to the contract expiration, when all contract requirements pertaining to the release area have been satisfactorily completed. Upon issuance of a release, Purchaser's right to cut and remove forest products on the released area will terminate.
G-310 Road Use Authorization
Purchaser is authorized to use the following State roads and roads for which the State has acquired easements and road use permits; CN-ML, CN-20, CN-2006, CN-32, CN36, CN-47, CN-4702, CN-4702-02, CN-54, CN-5403, LK-ML, LK-14, LK-24 and LK-
27. The State may authorize in writing the use of other roads subject to fees, restrictions, and prior rights.

G-330 Pre-work Conference
Purchaser shall arrange with the Contract Administrator to review this contract and to examine the sale area before beginning any operations. A plan of operations shall be developed and agreed upon by the Contract Administrator and Purchaser before beginning any operations. To the extent that the plan of operations is inconsistent with the contract, the terms of the contract shall prevail. State's acceptance and approval of Purchaser's plan of operations shall not be construed as any statement or warranty that the plan of operations is adequate for Purchaser's purposes or complies with applicable laws.

G-340 Preservation of Markers
Any legal land subdivision survey corners and witness objects are to be preserved. If such are destroyed or disturbed, the Purchaser shall, at the Purchaser's own expense, reestablish them through a licensed land surveyor in accordance with U.S. General Land Office standards. Corners and/or witness objects that must be disturbed or destroyed in the process of road construction or logging shall be adequately referenced and/or replaced in accordance with RCW 58.24.040(8). Such references must be approved by the Contract Administrator prior to removal of said corners and/or witness objects.

Road Use Reservation
The State shall have the right to use, without charge, all existing roads and any road constructed or reconstructed on State lands by Purchaser under this contract. The State may extend such rights to others. If the State grants such rights to others, the State shall require performance or payment, as directed by the State, for their proportionate share of maintenance based on their use.
G-380 Road Easement and Road Use Permit Requirements
Purchaser agrees to comply with the terms and conditions of the attached:
Easements with:
Scott Paper Company; \#55-000219; dated August 1, 1966.
Scott Paper Company; \#55-001308; dated June 23, 1975.
Sanfi Acres LLC; \#55-088281; dated April 2, 2013.
G-430 Open Fires
Purchaser shall not set, or allow to be set by Purchaser's employees, agents, invitees and independent contractors, any open fire at any time of the year without first obtaining permission, in writing, from the Contract Administrator.

G-450 Encumbrances
This contract and Purchaser's activities are subject to the following:
Easement, including the terms and provisions thereof,
For: Railroad
In Favor of: English Lumber Company
Disclosed by Application No.: 50-041604
Granted: 12/1/1919
Expires: Indefinite
Easement, including the terms and provisions thereof,
For: Road
In Favor of: John Hancock Mutual Life Insurance Company
Disclosed by Application No.: 50-086755
Granted: 12/19/1990

Expires: Indefinite
Covenant, including the terms and provisions thereof,
For: RMAP \& Reforestation
In Favor of: Weyerhaeuser Company
Disclosed by Application No.: 54-100376
Granted: 7/19/2019
Expires: Indefinite
Section P: Payments and Securities

## P-011 Initial Deposit

Purchaser paid DATA MISSING initial deposit, which will be maintained pursuant to RCW 79.15.100(3). If the operating authority on this contract expires without Purchaser's payment of the full amount specified in Clause P-020, the initial deposit will be immediately forfeited to the State, and will be offset against Purchaser's remaining balance due. Any excess initial deposit funds not needed to ensure full payment of the contract price, or not needed to complete any remaining obligations of the Purchaser existing after contract expiration, will be refunded to the Purchaser.

P-020 Payment for Forest Products
Purchaser agrees to pay the total, lump sum contract price of $\$ 94,016.00$. The total contract price consists of a $\$ 0.00$ contract bid price plus $\$ 94,016.00$ in fees. Fees collected shall be retained by the state unless the contract is adjusted via the G-066 clause. Purchaser shall be liable for the entire purchase price, and will not be entitled to any refunds or offsets unless expressly stated in this contract.

THE PURCHASE PRICE SHALL NOT BE AFFECTED BY ANY FACTORS, INCLUDING: the amount of forest products actually present within the contract area, the actual acreage covered by the contract area, the amount or volume of forest products actually cut or removed by purchaser, whether it becomes physically impossible or uneconomic to remove the forest products, and whether the subject forest products have been lost or damaged by fire or any other cause. The only situations Purchaser may not be liable for the full purchase price are governed by clause G-066, concerning governmental regulatory actions taken during the term of the contract.
P-045 Guarantee of Payment
Purchaser will pay for forest products prior to cutting or will guarantee payment by posting an approved payment security. The amount of cash or payment security shall be determined by the State and shall equal or exceed the value of the cutting proposed by Purchaser.

P-050 Billing Procedure
The State will compute and forward to Purchaser statements of charges provided for in the contract. Purchaser shall deliver payment to the State on or before the date shown on the billing statement.

Advance payments made under P-045 or P-045.2 remaining on account above the value for the charges shall be returned to Purchaser within 30 days following the final report of charges. Refunds not made within the 30 day period will accrue interest at the interest rate, as established by WAC 332-100-030, computed on a daily basis until paid.
P-090 Performance Security
Purchaser agrees to furnish, within 30 days of the confirmation date, security acceptable to the State in the amount of $\$ 100,000.00$. The Security provided shall guarantee performance of all provisions of this contract and payment of any damages caused by operations under this contract or resulting from Purchaser's noncompliance with any rule or law. Acceptable performance security may be in the form of a performance bond, irrevocable letter of credit, cash, savings or certificate of deposit account assignments, and must name the State as the obligee or beneficiary. A letter of credit must comply with Title 62A RCW, Article 5. Performance security must remain in full force over the duration of the contract length. Surety bonds issued shall conform to the issuance and rating requirements in clause G-150. The State shall retain the performance security pursuant to RCW 79.15.100. Purchaser shall not operate unless the performance security has been accepted by the State. If at any time the State decides that the security document or amount has become unsatisfactory, Purchaser agrees to suspend operations and, within 30 days of notification, to replace the security with one acceptable to the State or to supplement the amount of the existing security.

P-100 Performance Security Reduction
The State may reduce the performance security after an operating release has been issued if the State determines that adequate security exists for any remaining obligations of Purchaser.
Section H: Harvesting Operations
H-010 Cutting and Yarding Schedule
Falling and Yarding will not be permitted from November 1 to March 31 BY GROUND-BASED EQUIPMENT unless authorized in writing by the Contract Administrator.

H-013 Reserve Tree Damage Definition
Reserve trees are trees required and designated for retention within the sale boundary. Purchaser shall protect reserve trees from being cut, damaged, or removed during operations.

Reserve tree damage exists when one or more of the following criteria occur as a result of Purchaser's operation, as determined by the Contract Administrator:
a. A reserve tree has one or more scars on its trunk exposing the cambium layer, which in total exceeds 200 square inches.
b. A reserve tree top is broken or the live crown ratio is reduced below 30 percent.
c. A reserve tree has more than $1 / 3$ of the circumference of its root system injured such that the cambium layer is exposed.

If the Contract Administrator determines that a reserve tree has been cut or damaged, the Purchaser shall provide a replacement reserve tree of like condition, size, and species within the sale unit containing the damaged leave tree, as approved by the Contract Administrator. Purchaser may be required to pay liquidated damages for Excessive Reserve Tree Damage as detailed in clause D-041.

Removal of designated reserve trees from the sale area is unauthorized, and may invoke the use of the G-230 'Unauthorized Activity' clause. Purchaser is required to leave all cut or damaged reserve trees on site.
H-017 Preventing Excessive Soil Disturbance
Operations may be suspended when soil rutting exceeds 8 inches as measured from the natural ground line. To reduce soil damage, the Contract Administrator may require water bars to be constructed, grass seed to be placed on exposed soils, or other mitigation measures. Suspended operations shall not resume unless approval to do so has been given, in writing, by the Contract Administrator.

H-035 Fall Trees Into Sale Area
Trees shall be felled into the sale area unless otherwise approved by the Contract Administrator.

H-051 Branding and Painting
Purchaser shall provide a State of Washington registered log brand, acceptable to the State, unless the State agrees to furnish the brand. All purchased timber shall be branded in a manner that meets the requirements of WAC 240-15-030(2)(a)(i). All timber purchased under a contract designated as export restricted shall also be painted in a manner that meets the requirements of WAC 240-15-030(2)(a)(ii).

For pulp loads purchased under a contract designated as export restricted, Purchaser shall brand at least 3 logs with legible brands at one end. Also, 10 logs shall be painted at one end with durable red paint.
H-080 Snags Not to be Felled
Snags not required to be felled for safety reasons may be left standing. Snags felled for safety reasons shall not be removed and must remain where felled.

## H-110 Stump Height

Trees shall be cut as close to the ground as practicable. Stump height shall not exceed 12 inches in height measured on the uphill side, or 2 inches above the root collar, whichever is higher.

H-120 Harvesting Equipment
Forest products sold under this contract shall be harvested and removed using cable or tethered equipment (See H-141 for restrictions); shovel, " 6 -wheeled rubber tired skidders with over-the-tire tracks spanning both sets of rear tires" (See H-141 for restrictions), tracked skidder or rubber-tired skidder on sustained slopes $35 \%$ or less; self-leveling equipment on sustained slopes $50 \%$ or less (See H-141 for restrictions). Authority to use other equipment or to operate outside the equipment specifications detailed above must be approved in writing by the State.
H-125 Log Suspension Requirements
Lead-end suspension is required for all yarding activities.
H-126 Tailholds on State Land
If Purchaser tailholds on State land, methods to minimize damage to live trees outside the sale area shall be employed and must be approved in writing by the Contract Administrator.

H-130 Hauling Schedule
The hauling of forest products will not be permitted on any road from November 1 to March 31 unless authorized in writing by the Contract Administrator.

H-140 Special Harvest Requirements
Purchaser shall accomplish the following during the harvest operations:
A. The following types of equipment are considered ground-based equipment:

SHOVEL is defined as a low ground pressure track-mounted machine with hydraulic boom and grapple capable of picking up one end of the largest log 25 feet from the center of the machine.

LOG PROCESSOR/DE-LIMBER is defined as a mobile machine with a hydraulic boom capable of simultaneously bucking, delimbing and/or debarking and chipping whole trees while sitting stationary at the landing.

FELLER-BUNCHER/HARVESTER is defined as a track mounted machine with hydraulic boom and cutter head capable of felling, bucking, limbing, and decking logs in one operation.

FORWARDER is defined as a track or rubber tire machine used for transporting logs to a landing by use of a bunk with self loading boom in which logs are carried free of the ground.

RUBBER-TIRED SKIDDER is defined as a skidder mounted on rubber tires used to drag logs to a landing. Logs are generally pulled in groups of six or less, with one end on the ground.

TRACKED SKIDDER is defined as any tracked tractor or skidder, fixed or articulated, used to drag logs to landings. Logs are generally pulled in groups of six or less, with one end on the ground.
B. Equipment shall remain at least 30 feet from all water courses or areas of wet/soft soils, except as necessary to cross at approved locations. Water course crossing structures must be approved by the Contract Administrator.
C. When yarding and loading operations are occurring simultaneously, an additional shovel shall be required for loading to avoid extra trips to the landing. Shovel yarding shall not be allowed to create ruts or soil puddling. Shovel routes should be dispersed to prevent creation of definable trails.
D. An on-site pre-work meeting that includes the Contract Administrator and Purchaser will be required after operations have been disrupted (leading to a cessation of operations) or operations moved off site for a period of more than two weeks before any activities resume on site.
E. Single banded, blue painted leave trees may be traded with a like tree with prior approval of Contract Administrator.
F. Falling and yarding shall occur away from all scattered leave trees, leave tree areas, and typed waters where possible. Avoid parallel cable yarding in, across, or adjacent to stream channels where possible. All type 5 streams must have a 30 -foot equipment limitation zone measured from each bank. The limited crossings shall be as close to perpendicular as possible.
G. The Purchaser shall mark and the Contract Administrator must approve all Type 5 stream crossings. Full suspension is required over all streams.
H. The Purchaser shall mark and the Contract Administrator must approve all cable yarding corridors through RMZs. Full suspension is required over all streams. Trees cut within 25 feet of the 100-year floodplain must remain on site.
I. Purchaser shall ensure all gates associated with this project remain closed and locked during operations with the exception of periods of hauling. When hauling, the Purchaser shall ensure all gates are closed, and locked at the end of each day.

Permission to do otherwise must be granted in writing by the Contract Administrator.
H-141 Additional Harvest Requirements
Purchaser shall accomplish the following during the harvest operations:
A. A copy of the timber sale map, contract, and the FPA shall be present on site during active operations.
B. Purchaser must obtain prior written approval from the Contract Administrator for areas as to where " 6 wheeled rubber tired skidders with over-the-tire tracks spanning both sets of rear tires" may be utilized. If ground disturbance is causing excessive damage, as determined by the Contract Administrator, the equipment shall no longer be authorized.
C. Prior written approval of the Contract Administrator is required before tethered or self-leveling equipment may be used. If ground disturbance is causing excessive damage, as determined by the Contract Administrator, the use of this equipment will no longer be authorized.
D. Double-banded blue painted leave trees shall not be traded.

Permission to do otherwise must be granted in writing by the State.
H-190 Completion of Settings
Operations begun on any setting of the sale area shall be completed before any operation begins on subsequent settings unless authorized in writing by the Contract Administrator.
H-220 Protection of Residual or Adjacent Trees
Unless otherwise specified by this contract, the Contract Administrator shall identify damaged adjacent or leave trees that shall be paid for according to clause G-230.

## Section C: Construction and Maintenance

C-040 Road Plan
Road construction and associated work provisions of the Road Plan for this sale, dated 7/10/2023 are hereby made a part of this contract.
C-050 Purchaser Road Maintenance and Repair
Purchaser shall perform work at their own expense on the CN-32, CN-36, CN-47, CN4702, CN-4702-02, CN-54, CN-5403, LK-ML, LK-14, LK-24 and LK-27 roads. All work shall be completed to the specifications detailed in the Road Plan.
C-060 Designated Road Maintainer
If required by the State, Purchaser shall perform maintenance and replacement work as directed by the Contract Administrator on the CN-ML, CN-20, CN-2006 roads. Purchaser shall furnish a statement in a form satisfactory to the State showing the costs incurred while performing this work. Costs shall be based on the rates set forth in the equipment rate schedule on file at the Region office or Engineering Division in Olympia. The State shall reimburse Purchaser for said costs within 30 days of receipt and approval of the statement.

## Section S: Site Preparation and Protection

S-001 Emergency Response Plan
An Emergency Response Plan (ERP) shall be provided to the Contract Administrator containing but not limited to, valid contact numbers and procedures for medical emergencies, fire, hazardous spills, forest practice violations and any unauthorized or unlawful activity on or in the vicinity of the sale area. The Contract Administrator and the State shall be promptly notified whenever an incident occurs requiring an emergency response.

The ERP must be presented for inspection at the prework meeting and kept readily available to all personnel, including subcontractors, on site during active operations.

S-010 Fire Hazardous Conditions
Purchaser acknowledges that operations under this Contract may increase the risk of fire. Purchaser shall conduct all operations under this agreement following the requirements of WAC 332-24-005 and WAC 332-24-405 and further agrees to use the highest degree of care to prevent uncontrolled fires from starting.

In the event of an uncontrolled fire, Purchaser agrees to provide equipment and personnel working at the site to safely and effectively engage in first response fire suppression activity.

Purchaser's failure to effectively engage in fire-safe operations is considered a breach and may result in suspension of operations.
S-030 Landing Debris Clean Up
Landing debris shall be disposed of in a manner approved in writing by the Contract Administrator.

Logging Debris Clean Up
Slash and debris created from harvest activities shall be treated in a manner approved in writing by the Contract Administrator.
S-050 Cessation of Operations for Low Humidity
When the humidity is 30 percent or lower on the sale area, all operations must cease unless authority to continue is granted by the State in writing.
S-060 Pump Truck or Pump Trailer
Purchaser shall provide a fully functional pump truck or pump trailer equipped to meet the specifications of WAC 332-24-005 and WAC 332-24-405 during the "closed season" or as extended by the State and shall provide trained personnel to operate this equipment on the sale area during all operating periods.
S-100 Stream Cleanout
Slash or debris which enters any stream as a result of operations under this contract and which is identified by the Contract Administrator shall be removed and deposited in a
stable position. Removal of slash or debris shall be accomplished in a manner that avoids damage to the natural stream bed and bank vegetation.
Hazardous Materials
a. Hazardous Materials and Waste - Regulatory Compliance

Purchaser is responsible for understanding and complying with all applicable local, state, and federal hazardous material/waste laws and regulations for operations conducted under this contract. Such regulations pertain to, but may not be limited to, hazardous material storage, handling and transport, personnel protection, release notification and emergency response, cleanup, and waste disposal.

Purchaser shall be responsible for restoring the site in the event of a spill or other releases of hazardous material/waste during operations conducted under this contract.
b. Hazardous Materials Spill Prevention

All operations shall be conducted in a manner that avoids the release of hazardous materials, including petroleum products, into the environment (water, air or land).
c. Hazardous Materials Spill Containment, Control and Cleanup

If safe to do so, Purchaser shall take immediate action to contain and control all hazardous material spills. Purchaser shall ensure that enough quick response spill kits capable of absorbing 10 gallons of oil, coolant, solvent or contaminated water are available on site to quickly address potential spills from any piece of equipment at all times throughout active operations. If large quantities of bulk fuel/other hazardous materials are stored on site, Purchaser must be able to effectively control a container leak and contain \& recover a hazmat spill equal to the largest single on site storage container volume. (HAZWOPER reg. 29CFR 1910.120 (j) (1) (vii)).
d. Hazardous Material Release Reporting

Releases of oil or hazardous materials to the environment must be reported according to the State Department of Ecology (ECY). It is the responsibility of the Purchaser to have all emergency contact information readily available and a means of remote communication for purposes of quick notification. In the event of a spill covered in part a., the Purchaser is responsible for immediately notifying all the following:
-Department of Emergency Management at 1-800-258-5990
-National Response Center at 1-800-424-8802
-Appropriate Department of Ecology (ECY) at 1-800-645-7911
-DNR Contract Administrator

S-131 Refuse Disposal
As required by RCW 70.93, All Purchaser generated refuse shall be removed from state lands for proper disposal prior to termination of this contract. No refuse shall be burned, buried or abandoned on state forest lands. All refuse shall be transported in a manner such that it is in compliance with RCW 70.93 and all loads or loose materials shall be covered/secured such that these waste materials are properly contained during transport.

## Section D: Damages

D-013 Liquidated Damages or Failure to Perform
The following clauses provide for payments by Purchaser to the State for breaches of the terms of this contract other than failure to perform. These payments are agreed to as liquidated damages and not as penalties. They are reasonable estimates of anticipated harm to the State, which will be caused by Purchaser's breach. These liquidated damages provisions are agreed to by the State and Purchaser with the understanding of the difficulty of proving loss and the inconvenience or infeasibility of obtaining an adequate remedy. These liquidated damages provisions provide greater certainty for the Purchaser by allowing the Purchaser to better assess its responsibilities under the contract.

Clause P-020 governs Purchaser's liability in the event Purchaser fails to perform any of the contract requirements other than the below liquidated damage clauses without written approval by the State. Purchaser's failure to pay for all or part of the forest products sold in this contract prior to expiration of the contract term results in substantial injury to the State. Therefore, Purchaser agrees to pay the State the full lump sum contract price in P-020 in the event of failure to perform.
D-041 Reserve Tree Excessive Damage
When Purchaser's operations exceed the damage limits set forth in clause H-013, Reserve Tree Damage Definition, and when the Contract Administrator determines that a suitable replacement for a damaged reserve tree is not possible, the damaged trees result in substantial injury to the State. The value of the damaged reserve trees at the time of the breach is not readily ascertainable. Therefore, the Purchaser agrees to pay the State as liquidated damages at the rate of $\$ 1,000.00$ per tree for all damaged reserve trees that are not replaced in the sale area.

## SIGNATURES

This agreement may be executed in any number of counterparts (including by electronic mail in portable document format (.pdf), or by facsimile) each of which shall be deemed an original but all of which, when taken together, shall constitute one and the same Agreement binding on all parties.

IN WITNESS WHEREOF, the Parties hereto have entered into this contract.
STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

Purchaser
Print Name
Date: $\qquad$
Address:

Jay Guthrie
Northwest Region Manager

Date: $\qquad$

## CORPORATE ACKNOWLEDGEMENT

(Required for both LLC and Inc. Entities)


COUNTY OF $\qquad$
On this day of $\qquad$ , 20 $\qquad$ , before me personally appeared
$\qquad$
$\qquad$
$\qquad$ to me known to be the of the corporation that executed the within and foregoing instrument and acknowledged said instrument to be the free and voluntary act and deed of the corporation, for the uses and purposes therein mentioned, and on oath stated that (he/she was) (they were) authorized to execute said instrument.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above written.

Notary Public in and for the State of

My appointment expires $\qquad$

## WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

## FOREST EXCISE TAX ROAD SUMMARY SHEET

Region: Northwest

Timber Sale Name: SARUS

Application Number: 30- 104686

Excise Tax Applicable Activities

Construction: $\quad 3,726 \quad$ linear feet
Road to be constructed (optional and required) but not abandoned
Reconstruction: $\quad 3,076 \quad$ linear feet
Road to be reconstructed (optional and required) but not abandoned
Abandonment:
0 linear feet
Abandonment of existing roads not reconstructed under the contract

Decommission: $0 \quad$ linear feet
Road to be made undriveable but not officially abandoned.
Pre-Haul Maintenance: $\quad 11,081 \quad$ linear feet
Existing road to receive maintenance work (optional and required) prior to haul

## Excise Tax Exempt Activities

Temporary Construction: $\quad$ 3,601 linear feet

Roads to be constructed (optional and required) and then abandoned

3,129 linear feet
Temporary Reconstruction:
Roads to be reconstructed (optional and required) and then abandoned

All parties must make their own assessment of the taxable or non-taxable status of any work performed under the timber sale contact. The Department of Revenue bears responsibility for determining forest road excise taxes. The Department of Natural Resources developed this form to help estimate the impact of forest excise taxes. However, the information provided may not precisely calculate the actual amount of taxes due. The Department of Revenue is available for consultation by calling 1.800.548.8829.
(Revised 9/18)

## PRE-CRUISE NARRATIVE

| Sale Name: Sarus | Region: Northwest |
| :--- | :--- |
| Agreement \#: 30-104686 | District: Clear Lake |
| Contact Forester: Jack Armstrong <br> Phone / Location: $360-982-1567$ | County(s): Skagit |
| Alternate Contact: Mark Arneson <br> Phone / Location: 360-770-4570 | Other information: <br> Click here to enter text. |


| Type of Sale: Lump Sum |  |
| :--- | :---: |
| Harvest System: Ground Based, Uphill \& Downhill Cable | See Logging Plan Map |

## UNIT ACREAGES AND METHOD OF DETERMINATION:

| Unit \# <br> Harvest R/W or RMZ WMZ | Legal <br> Description <br> (Enter only one <br> legal for each <br> unit) <br> Sec/Twp/Rng |  |  | Deductions from Gross Acres (No harvest acres) |  |  |  |  | Acreage Determination <br> (List method and error of closure if applicable) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |
| 1A | $\begin{aligned} & \text { Sec 21, 20, 28, } \\ & \text { 29, } \mathrm{T} 33, \mathrm{RO6E} \end{aligned}$ | $\begin{gathered} 01 \\ 03,43 \end{gathered}$ | 24.5 | 0.0 | 0.9 | 0.8 | 0.0 | 22.8 | $\begin{aligned} & \hline \text { GPS } \\ & \text { (Garmin) } \end{aligned}$ |
| 1B | Sec 20, 29, T33, R06E | 01, 03 | 20.6 | 0.0 | 1.0 | 0.0 | 0.0 | 19.6 | GPS <br> (Garmin) |
| 1C | $\begin{gathered} \hline \text { Sec } 19,20, \mathrm{~T} 33, \\ \text { R06E } \end{gathered}$ | 01 | 29.3 | 0.0 | 1.2 | 0.8 | 0.0 | 27.3 | GPS <br> (Garmin) |
| 2A | $\begin{gathered} \text { Sec 19, 30, T33, } \\ \text { R06E } \end{gathered}$ | 01,03 | 23.4 | 0.0 | 0.9 | 0.0 | 0.0 | 22.5 | GPS (Garmin) |
| 2B | $\begin{gathered} \text { Sec 19, 30, T33, } \\ \text { R06E } \end{gathered}$ | 01,03 | 2.7 | 0.0 | 0.1 | 0.0 | 0.0 | 2.6 | GPS (Garmin) |
| 2C | $\begin{gathered} \text { Sec } 19,30, \mathrm{~T} 33, \\ \text { R06E } \\ \hline \end{gathered}$ | 01,03 | 2.8 | 0.0 | 0.1 | 0.0 | 0.0 | 2.7 | GPS (Garmin) |
| 3 | Sec 24, T33, R05E | 01,04 | 18.5 | 0.0 | 1.3 | 0.8 | 0.0 | 16.4 | GPS (Garmin) |
| ROW1 | Sec 21, T33, | 43 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | Combination |
| ROW2 | $\begin{aligned} & \text { Sec 20, 29, 30, } \\ & \text { T33, R06E } \end{aligned}$ | 01,03 | 4.8 | 0.0 | 0.0 | 0.0 | 0.0 | 4.8 | GPS (Garmin) |
| TOTAL ACRES |  |  | 127.1 | 0.0 | 5.5 | 2.4 | 0.0 | 119.2 |  |

HARVEST PLAN AND SPECIAL CONDITIONS:
$\left.\begin{array}{|c|l|l|l|}\hline \text { Unit \# } & \begin{array}{l}\text { Harvest Prescription: } \\ \text { (Leave, take, paint color, tags, flagging } \\ \text { etc.) }\end{array} & \begin{array}{l}\text { Special Management } \\ \text { areas: }\end{array} & \begin{array}{l}\text { Other conditions (\# } \\ \text { leave trees, etc.) }\end{array} \\ \hline \text { 1A } & \begin{array}{l}\text { Variable Retention Harvest (VRH), take } \\ \text { all trees bounded by white "Timber Sale } \\ \text { Boundary" tags, timber type break, and } \\ \text { the LK-ML road. All trees marked with } \\ \text { blue paint or bounded by "Yellow Leave } \\ \text { Tree Area" tags are designated as leave } \\ \text { trees. }\end{array} & \text { None } & \begin{array}{l}198 \text { total leave trees } \\ \text { (175 clumped, 23 } \\ \text { dispersed) are marked } \\ \text { with yellow leave tree } \\ \text { area tags and/or blue } \\ \text { paint. }\end{array} \\ \hline \text { 1B } & \begin{array}{l}\text { Variable Retention Harvest (VRH), take } \\ \text { all trees bounded by white "Timber Sale } \\ \text { Boundary" tags, timber type break, and } \\ \text { the LK-ML road. All trees marked with } \\ \text { blue paint or bounded by "Yellow Leave } \\ \text { Tree Area" tags are designated as leave } \\ \text { trees. }\end{array} & \text { None } & \begin{array}{l}188 \text { total leave trees } \\ \text { (178 clumped, 10 } \\ \text { dispersed) are marked } \\ \text { with yellow leave tree } \\ \text { area tags and/or blue } \\ \text { paint. }\end{array} \\ \hline \text { 1C } & \begin{array}{l}\text { Variable Retention Harvest (VRH), take } \\ \text { all trees bounded by white "Timber Sale } \\ \text { Boundary" tags, timber type break, and } \\ \text { the CN-47 road. All trees marked with } \\ \text { blue paint or bounded by "Yellow Leave } \\ \text { Tree Area" tags are designated as leave }\end{array} & \text { None } & \begin{array}{l}252 \text { total leave trees } \\ \text { (238 clumped, 14 } \\ \text { dispersed) are marked } \\ \text { trees. }\end{array} \\ \text { with yellow leave tree }\end{array}\right\}$

|  | Tree Area" tags are designated as leave <br> trees. | area tags and/or blue <br> paint. |  |
| :--- | :--- | :---: | :---: |
| ROW1 | Right-of-Way, take all trees bound by <br> orange Right-of-Way Tags, timber type <br> break and the LK-14 road. | None |  |
| ROW2 | Right-of-Way, take all trees within 30 feet <br> of the road centerline and all trees bound <br> by orange Right-of-Way Tags. | None | None |

## OTHER PRE-CRUISE INFORMATION:

| Unit \# | Primary,secondary Species / Estimated Volume (MBF) | Access information (Gates, locks, etc.) | Photos, traverse maps required |
| :---: | :---: | :---: | :---: |
| 1A | DF-RA / 433 MBF | Lake Creek Mainline off Lake Cavanaugh Road. F1-3 key required. | Traverse and vicinity maps attached. |
| 1B | DF-WH / 627 MBF | Crane Creek Mainline off Granstrom Road. F1-3 key required. |  |
| 1 C | DF-WH / 1,010 MBF |  |  |
| 2A | DF-WH / 698 MBF |  |  |
| 2B | DF-WH / 86 MBF |  |  |
| 2 C | DF-WH / 97 MBF |  |  |
| 3 | DF-WH / 623 MBF |  |  |
| ROW1 | DF-WH / 3 MBF | Lake Creek Mainline off Lake Cavanaugh Road. F1-3 key required. |  |
| ROW2 | DF-WH / 96 MBF | Crane Creek Mainline off Granstrom Road. F1-3 key required. |  |
| TOTAL MBF | 3,672 MBF |  |  |

## REMARKS:

Existing road acres calculated using length x width/43,560 sq. ft/acre.

| Prepared By: Jack Armstrong <br> Date: $08 / 30 / 2023$ | Title: Forester | CC: |
| :--- | :--- | :--- |



## Sarus Timber Sale



## Sarus Timber Sale






## Sarus Timber Sale




# Timber Sale Cruise Report <br> Sarus - NW 

Sale Name: SARUS
Sale Type: LUMP SUM
Region: NORTHWEST

## District: CLEAR LAKE

Lead Cruiser: Matt Llobet
Other Cruisers: Bailey Vos
Location:
Sarus is a three unit timber sale located south of Sedro Woolley off the Lake Cavanaugh road. The sale ranges from 1040 feet to 1440 feet in elevation and has excellent road access to all three units.

Cruise Design:
All VHR units were cruised using a 54.4/46.9/40 BAF combination and a $1: 1$ sample ratio was applied. The right of way units were cruised using a 46.9/40.0 BAF combination and a cruise-all sample was applied. The smallest merchantable tree cruised throughout the sale had a DBH of 7.0 inches and 5.0 inches at 16 feet.

Conifer log lengths were cruised in 2 foot multiples - maximizing 32-40 ft. lengths. Hardwood log lengths were cruised in 10 foot multiples - no longer than 30 feet long.

VRH Units:
The stand characteristics throughout the VRH units showed a homogenous timber type with mild brush throughout the understory. The terrain throughout was gentle/mild, making for productive operator ground. The species composition consists of Douglas fir, Western Hemlock, Western Red Cedar and scattered hardwoods. The Douglas fir made up $76 \%$ of the sale volume amounting to 2,767 mbf. Western Hemlock made up $14 \%$ of the sale volume amounting to 517 mbf .

Right of Way Units:
The right of way volume associated with Sarus is a combination of fully timbered new construction and partially timbered old road grade.

Logging:
Approximately $94 \%$ of the sale is ground base harvest and $6 \%$ cable harvest - with productive operator ground.

Timber Sale Notice Volume (MBF)

|  |  |  | MBF Volume by Grade |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Sp | DBH | Rings/In | Age | All | 2 Saw | 3 Saw | 4 Saw | Utility |
| DF | 17.6 | 6.8 | 2,766 | 1,277 | 1,261 | 196 | 33 |  |
| WH | 12.9 |  | 517 | 38 | 368 | 89 | 22 |  |
| RA | 13.3 |  | 300 | 18 | 74 | 208 |  |  |
| BC | 16.3 |  | 25 | 25 |  |  |  |  |
| MA | 10.5 |  | 4 |  |  | 3 | 2 |  |
| RC | 13.0 |  | 4 |  | 4 |  |  |  |
| ALL | 15.8 | 6.8 | 3,616 | 1,359 | 1,707 | 495 | 56 |  |

Timber Sale Notice Weight (tons)

|  | Tons by Grade |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Sp | All | 2 Saw | 3 Saw | 4 Saw | Utility |
| DF | 20,606 | 8,810 | 9,765 | 1,764 | 267 |
| WH | 4,294 | 321 | 3,015 | 787 | 171 |
| RA | 2,323 | 133 | 507 | 1,683 |  |
| BC | 166 | 166 |  |  |  |
| RC | 34 |  | 34 |  |  |
| MA | 32 |  |  | 22 | 11 |
| ALL | 27,455 | 9,430 | 13,321 | 4,255 | 448 |

Timber Sale Overall Cruise Statistics

| BA <br> $(\mathrm{sq} \mathrm{ft} / \mathrm{acre})$ | BA SE <br> $(\%)$ | V-BAR <br> $(\mathrm{bf} / \mathrm{sq} \mathrm{ft})$ | V-BAR SE <br> $(\%)$ | Net Vol <br> $(\mathrm{bf} / \mathrm{acre})$ | Vol SE <br> $(\%)$ |
| ---: | :---: | ---: | ---: | ---: | ---: |
| 222.2 | 4.1 | 133.4 | 1.4 | 30,339 | 4.5 |

Timber Sale Unit Cruise Design

| Unit | Design | Cruise <br> Acres | FMA <br> Acres | N Plots | N Cruise Plots | N Void Plots |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SARUS 1A | B2C: VR, 2 BAF (46.94, 40 for some species) Measure/Count Plots, Sighting $\mathrm{Ht}=4.5 \mathrm{ft}$ | 22.8 | 24.5 | 15 | 11 | 0 |
| SARUS 1B | B2C: VR, 2 BAF (46.94, 40 for some species) Measure/Count Plots, Sighting $\mathrm{Ht}=4.5 \mathrm{ft}$ | 19.6 | 20.6 | 16 | 9 | 0 |
| SARUS <br> 1C | B2C: VR, 2 BAF (54.44, 40 for some species) Measure/Count Plots, Sighting $\mathrm{Ht}=4.5 \mathrm{ft}$ | 27.3 | 29.3 | 14 | 8 | 0 |
| SARUS $2 \mathrm{~A}$ | B2C: VR, 2 BAF (46.94, 40 for some species) Measure/Count Plots, Sighting $\mathrm{Ht}=4.5 \mathrm{ft}$ | 22.5 | 23.4 | 15 | 9 | 0 |
| SARUS 2B | B2: VR, 2 BAF (46.94, 40 for some species) Measure All, Sighting $\mathrm{Ht}=4.5 \mathrm{ft}$ | 2.6 | 2.7 | 3 | 3 | 0 |
| SARUS $2 \mathrm{C}$ | B2: VR, 2 BAF (54.44, 40 for some species) Measure All, Sighting $\mathrm{Ht}=4.5 \mathrm{ft}$ | 2.7 | 2.8 | 3 | 3 | 0 |
| SARUS 3 | B2C: VR, 2 BAF (54.44, 40 for some species) Measure/Count Plots, Sighting $\mathrm{Ht}=4.5 \mathrm{ft}$ | 16.4 | 18.5 | 14 | 7 | 0 |
| SARUS ROW 1 | B1: VR, 1 BAF (40) Measure All, Sighting $\mathrm{Ht}=4.5 \mathrm{ft}$ | 0.5 | 0.5 | 2 | 2 | 0 |
| SARUS ROW 2 | B2: VR, 2 BAF (46.94, 40 for some species) Measure All, Sighting $\mathrm{Ht}=4.5 \mathrm{ft}$ | 4.8 | 4.8 | 3 | 3 | 0 |


| Unit | Design | Cruise <br> Acres | FMA <br> Acres | N <br> Plots | N Cruise <br> Plots | N Void <br> Plots |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| All |  | 119.2 | 127.2 | 85 | 55 | 0 |

Timber Sale Log Grade x Sort Summary

| Sp | Status | Grade | Sort | Dia | Len | BF Gross | BF Net | Defect \% | Tons | MBF Net |
| :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| BC | LIVE | 2 SAW | Domestic | 9.8 | 33 | 212 | 212 | 0.0 | 166.3 | 25.3 |
| BC | LIVE | CULL | Cull | 11.9 | 4 | 9 | 0 | 100.0 | 0.0 | 0.0 |
| DF | LIVE | 2 SAW | Domestic | 14.3 | 38 | 10,449 | 10,349 | 1.0 | $8,502.3$ | $1,233.6$ |
| DF | LIVE | 2 SAW | Pole | 13.1 | 40 | 368 | 368 | 0.0 | 307.6 | 43.9 |
| DF | LIVE | 3 SAW | Domestic | 9.1 | 35 | 10,081 | 9,920 | 1.6 | $9,206.6$ | $1,182.5$ |
| DF | LIVE | 3 SAW | Pole | 11.0 | 36 | 656 | 656 | 0.0 | 558.7 | 78.2 |
| DF | LIVE | 4 SAW | Domestic | 6.3 | 25 | 1,489 | 1,455 | 2.3 | $1,564.0$ | 173.5 |
| DF | LIVE | 4 SAW | Pole | 8.4 | 23 | 186 | 186 | 0.0 | 199.7 | 22.1 |
| DF | LIVE | CULL | Cull | 16.5 | 7 | 103 | 0 | 100.0 | 0.0 | 0.0 |
| DF | LIVE | UTILITY | Pulp | 5.7 | 25 | 273 | 273 | 0.0 | 266.7 | 32.6 |
| MA | LIVE | 4 SAW | Domestic | 7.6 | 20 | 22 | 22 | 0.0 | 21.6 | 2.6 |
| MA | LIVE | UTILITY | Pulp | 5.4 | 20 | 14 | 14 | 0.0 | 10.8 | 1.7 |
| RA | LIVE | 2 SAW | Domestic | 12.9 | 29 | 156 | 152 | 2.8 | 132.6 | 18.1 |
| RA | LIVE | 3 SAW | Domestic | 10.9 | 31 | 618 | 618 | 0.0 | 507.0 | 73.6 |
| RA | LIVE | 4 SAW | Domestic | 7.6 | 26 | 1,751 | 1,746 | 0.3 | $1,683.4$ | 208.1 |
| RA | LIVE | CULL | Cull | 14.2 | 12 | 28 | 0 | 100.0 | 0.0 | 0.0 |
| RC | LIVE | 3 SAW | Domestic | 6.6 | 36 | 33 | 33 | 0.0 | 34.3 | 4.0 |
| WH | LIVE | 2 SAW | Domestic | 13.7 | 40 | 317 | 317 | 0.0 | 321.2 | 37.7 |
| WH | LIVE | $3 ~ S A W ~$ | Domestic | 8.5 | 33 | 3,120 | 3,091 | 0.9 | $3,014.8$ | 368.5 |
| WH | LIVE | 4 SAW | Domestic | 5.9 | 24 | 746 | 744 | 0.2 | 786.7 | 88.7 |
| WH | LIVE | CULL | Cull | 12.0 | 8 | 88 | 0 | 100.0 | 0.0 | 0.0 |
| WH | LIVE | UTILITY | Pulp | 5.9 | 25 | 182 | 182 | 0.0 | 170.9 | 21.7 |

Timber Sale Log Sort x Diameter Bin Summary

| Sp | Bin | Status | Sort | Dia | Len | BF Net | Defect \% | Tons | MBF Net |
| :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| BC | $5+$ | LIVE | Domestic | 9.7 | 33 | 212 | 0.0 | 166.3 | 25.3 |
| BC | $5+$ | LIVE | Cull | 11.9 | 4 | 0 | 100.0 | 0.0 | 0.0 |
| DF | $5-7$ | LIVE | Pulp | 5.7 | 26 | 273 | 0.0 | 266.7 | 32.6 |
| DF | $5-7$ | LIVE | Domestic | 6.3 | 28 | 2,745 | 1.2 | $2,822.1$ | 327.2 |
| DF | $8-11$ | LIVE | Pole | 9.5 | 29 | 739 | 0.0 | 678.2 | 88.1 |
| DF | $8-11$ | LIVE | Domestic | 9.7 | 35 | 8,631 | 1.8 | $7,948.6$ | $1,028.8$ |
| DF | $12-15$ | LIVE | Pole | 12.9 | 38 | 471 | 0.0 | 387.8 | 56.2 |


| Sp | Bin | Status | Sort | Dia | Len | BF Net | Defect $\%$ | Tons | MBF Net |
| :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| DF | $12-15$ | LIVE | Domestic | 13.8 | 39 | 7,982 | 0.8 | $6,717.7$ | 951.4 |
| DF | $12-15$ | LIVE | Cull | 14.5 | 6 | 0 | 100.0 | 0.0 | 0.0 |
| DF | $16-19$ | LIVE | Domestic | 16.9 | 39 | 2,367 | 1.6 | $1,784.6$ | 282.1 |
| DF | $16-19$ | LIVE | Cull | 18.9 | 9 | 0 | 100.0 | 0.0 | 0.0 |
| MA | $5+$ | LIVE | Pulp | 5.4 | 20 | 14 | 0.0 | 10.8 | 1.7 |
| MA | $5+$ | LIVE | Domestic | 7.6 | 20 | 22 | 0.0 | 21.6 | 2.6 |
| RA | $5-7$ | LIVE | Domestic | 6.7 | 24 | 725 | 0.3 | 676.3 | 86.4 |
| RA | $8+$ | LIVE | Domestic | 9.7 | 30 | 1,791 | 0.4 | $1,646.7$ | 213.5 |
| RA | $8+$ | LIVE | Cull | 14.2 | 12 | 0 | 100.0 | 0.0 | 0.0 |
| RC | $5+$ | LIVE | Domestic | 6.6 | 36 | 33 | 0.0 | 34.3 | 4.0 |
| WH | $5-7$ | LIVE | Pulp | 5.9 | 25 | 182 | 0.0 | 170.9 | 21.7 |
| WH | $5-7$ | LIVE | Domestic | 6.1 | 27 | 1,359 | 0.1 | $1,389.1$ | 162.0 |
| WH | $8-11$ | LIVE | Domestic | 9.5 | 33 | 2,477 | 1.1 | $2,412.3$ | 295.3 |
| WH | $8-11$ | LIVE | Cull | 11.9 | 5 | 0 | 100.0 | 0.0 | 0.0 |
| WH | $12-15$ | LIVE | Cull | 12.5 | 40 | 0 | 100.0 | 0.0 | 0.0 |
| WH | $12-15$ | LIVE | Domestic | 13.9 | 40 | 317 | 0.0 | 321.2 | 37.7 |

## Cruise Unit Report <br> SARUS 1A

Unit Sale Notice Volume (MBF): SARUS 1A

|  |  |  | MBF Volume by Grade |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Sp | DBH | Rings/In | Age | All | 2 Saw | 3 Saw | 4 Saw | Utility |
| DF | 14.1 | 7.0 | 185 | 47 | 113 | 23 | 3 |  |
| RA | 12.8 |  | 143 | 8 | 25 | 110 |  |  |
| WH | 10.8 |  | 101 |  | 80 | 15 | 6 |  |
| BC | 16.3 |  | 10 | 10 |  |  |  |  |
| ALL | 12.7 | 7.0 | 440 | 65 | 218 | 148 | 9 |  |

Unit Cruise Design: SARUS 1A

| Design | Cruise <br> Acres | FMA <br> Acres | N <br> Plots | N Cruise <br> Plots | N Void <br> Plots |
| :--- | :---: | :---: | :---: | :---: | :---: |
| B2C: VR, 2 BAF (46.94, 40 for some species) | 22.8 | 24.5 | 15 | 11 | 0 |
| Measure/Count Plots, Sighting $\mathrm{Ht}=4.5 \mathrm{ft}$ |  |  |  |  |  |

Unit Cruise Summary: SARUS 1A

| Sp | Cruised Trees | All Trees | Trees/Plot | Ring-Count Trees |
| :--- | :---: | :---: | ---: | :---: |
| DF | 13 | 22 | 1.5 | 1 |
| RA | 15 | 21 | 1.4 | 0 |
| WH | 9 | 12 | 0.8 | 0 |
| BC | 1 | 1 | 0.1 | 0 |
| ALL | 38 | 56 | 3.7 | 1 |

Unit Cruise Statistics: SARUS 1A

| Sp | BA <br> $(\mathrm{sq} \mathrm{ft} / \mathrm{acre})$ | BA CV <br> $(\%)$ |  | BA SE <br> $(\%)$ | V-BAR <br> $(\mathrm{bf} / \mathrm{sq} \mathrm{ft})$ | V-BAR CV <br> $(\%)$ | V-BAR SE <br> $(\%)$ | Net Vol <br> $(\mathrm{bf} / \mathrm{acre})$ |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| DF | 68.8 | 99.4 | 25.7 | 118.1 | 12.3 | 3.4 | 8,134 | 100.1 | 25.9 |
| RA CV | 56.0 | 110.7 | 28.6 | 112.2 | 16.4 | 4.2 | 6,284 | 111.9 | 28.9 |
| WH | 37.6 | 126.8 | 32.7 | 117.8 | 30.9 | 10.3 | 4,422 | 130.5 | 34.3 |
| BC | 3.1 | 387.3 | 100.0 | 145.6 | 0.0 | 0.0 | 456 | 387.3 | 100.0 |
| ALL | 165.5 | 38.9 | 10.0 | 116.6 | 19.5 | 3.2 | 19,295 | 43.5 | 10.5 |

Unit Summary: SARUS 1A

| Sp | Status | Rx | N | D | DBH | BL | THT | BF <br> Gross | BF <br> Net | Defect <br> $\%$ | TPA | BA | RD | MBF <br> Net |
| :--- | :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| BC | LIVE | CUT | 1 | ALL | 16.3 | 80 | 106 | 456 | 456 | 0.0 | 2.2 | 3.1 | 0.8 | 10.4 |
| DF | LIVE | CUT | 13 | ALL | 13.6 | 62 | 89 | 8,308 | 8,134 | 2.1 | 68.2 | 68.8 | 18.7 | 185.5 |
| RA | LIVE | CUT | 15 | ALL | 12.6 | 57 | 79 | 6,284 | 6,284 | 0.0 | 64.7 | 56.0 | 15.8 | 143.3 |
| WH | LIVE | CUT | 9 | ALL | 11.3 | 45 | 67 | 4,422 | 4,422 | 0.0 | 53.9 | 37.6 | 11.2 | 100.8 |
| ALL | LIVE | CUT | 38 | ALL | 12.7 | 56 | 79 | 19,469 | 19,295 | 0.9 | 189.0 | 165.5 | 46.4 | 439.9 |
| ALL | ALL | ALL | 38 | ALL | 12.7 | 56 | 79 | 19,469 | 19,295 | 0.9 | 189.0 | 165.5 | 46.4 | 439.9 |

## Cruise Unit Report

## SARUS 1B

Unit Sale Notice Volume (MBF): SARUS 1B

|  |  |  | MBF Volume by Grade |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Sp | DBH | Rings/In | Age | All | 2 Saw | 3 Saw | 4 Saw |  |
| DF | 16.9 | 7.0 | 476 | 194 | 242 | 29 | 11 |  |
| RA | 14.4 |  | 114 | 10 | 49 | 55 |  |  |
| WH | 8.0 |  | 5 |  |  | 5 |  |  |
| MA | 10.5 |  | 4 |  |  | 3 | 2 |  |
| ALL | 15.4 | 7.0 | 599 | 204 | 291 | 92 | 12 |  |

Unit Cruise Design: SARUS 1B

| Design | Cruise <br> Acres | FMA <br> Acres | N <br> Plots | N Cruise <br> Plots | N Void <br> Plots |
| :--- | :---: | :---: | :---: | :---: | :---: |
| B2C: VR, 2 BAF (46.94, 40 for some species) <br> Measure/Count Plots, Sighting $\mathrm{Ht}=4.5 \mathrm{ft}$ | 19.6 | 20.6 | 16 | 9 | 0 |

Unit Cruise Summary: SARUS 1B

| Sp | Cruised Trees | All Trees | Trees/Plot | Ring-Count Trees |
| :--- | :---: | :---: | ---: | :---: |
| DF | 31 | 58 | 3.6 | 1 |
| RA | 16 | 20 | 1.3 | 0 |
| WH | 1 | 1 | 0.1 | 0 |
| MA | 1 | 1 | 0.1 | 0 |
| ALL | 49 | 80 | 5.0 | 1 |

Unit Cruise Statistics: SARUS 1B

| Sp | BA <br> $(\mathrm{sq} \mathrm{ft} / \mathrm{acre})$ | BA CV <br> $(\%)$ | BA SE <br> $(\%)$ | V-BAR <br> $(\mathrm{bf} / \mathrm{sq} \mathrm{ft})$ | V-BAR CV <br> $(\%)$ | V-BAR SE <br> $(\%)$ | Net Vol <br> $(\mathrm{bf} / \mathrm{acre})$ | Vol CV <br> $(\%)$ |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | | Vol SE |
| :---: |
| $(\%)$ |

Unit Summary: SARUS 1B

| Sp | Status | Rx | N | D | DBH | BL | THT | BF <br> Gross | BF <br> Net | Defect <br> $\%$ | TPA | BA | RD | MBF <br> Net |
| :--- | :--- | :--- | :--- | :--- | ---: | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| DF | LIVE | CUT | 31 | ALL | 16.4 | 76 | 98 | 24,575 | 24,286 | 1.2 | 116.0 | 170.2 | 42.0 | 476.0 |
| MA | LIVE | CUT | 1 | ALL | 10.5 | 55 | 67 | 220 | 220 | 0.0 | 4.2 | 2.5 | 0.8 | 4.3 |
| RA | LIVE | CUT | 16 | ALL | 14.1 | 64 | 90 | 6,018 | 5,809 | 3.5 | 46.1 | 50.0 | 13.3 | 113.9 |
| WH | LIVE | CUT | 1 | ALL | 8.0 | 32 | 55 | 252 | 252 | 0.0 | 8.4 | 2.9 | 1.0 | 4.9 |
| ALL | LIVE | CUT | 49 | ALL | 15.4 | 70 | 93 | 31,066 | 30,568 | 1.6 | 174.7 | 225.6 | 57.1 | 599.1 |
| ALL | ALL | ALL | 49 | ALL | 15.4 | 70 | 93 | 31,066 | 30,568 | 1.6 | 174.7 | 225.6 | 57.1 | 599.1 |

## Cruise Unit Report <br> SARUS 1C

Unit Sale Notice Volume (MBF): SARUS 1C

|  |  |  | MBF Volume by Grade |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Sp | DBH | Rings/In | Age | All | 2 Saw | 3 Saw | 4 Saw | Utility |
| DF | 19.0 | 6.5 | 1,026 | 561 | 393 | 65 | 8 |  |
| WH | 12.2 |  | 77 |  | 46 | 15 | 16 |  |
| RA | 12.0 |  | 24 |  |  | 24 |  |  |
| BC | 16.3 |  | 15 | 15 |  |  |  |  |
| ALL | 17.0 | 6.5 | 1,142 | 575 | 439 | 104 | 23 |  |

Unit Cruise Design: SARUS 1C

| Design | Cruise <br> Acres | FMA <br> Acres | N <br> Plots | N Cruise <br> Plots | N Void <br> Plots |
| :--- | :---: | :---: | :---: | :---: | :---: |
| B2C: VR, 2 BAF (54.44, 40 for some species) <br> Measure/Count Plots, Sighting $\mathrm{Ht}=4.5 \mathrm{ft}$ | 27.3 | 29.3 | 14 | 8 | 0 |

Unit Cruise Summary: SARUS 1C

| Sp | Cruised Trees | All Trees | Trees/Plot | Ring-Count Trees |
| :--- | :---: | :---: | ---: | :---: |
| DF | 35 | 62 | 4.4 | 2 |
| WH | 5 | 6 | 0.4 | 0 |
| RA | 1 | 3 | 0.2 | 0 |
| BC | 1 | 1 | 0.1 | 0 |
| ALL | 42 | 72 | 5.1 | 2 |

Unit Cruise Statistics: SARUS 1C

| Sp | $\begin{gathered} \text { BA } \\ \text { (sq ft/acre) } \end{gathered}$ | BA CV (\%) | BA SE <br> (\%) | V-BAR <br> (bf/sq ft) | V-BAR CV <br> (\%) | V-BAR SE <br> (\%) | Net Vol (bf/acre) | Vol CV (\%) | Vol SE <br> (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DF | 241.1 | 52.2 | 13.9 | 155.8 | 19.7 | 3.3 | 37,572 | 55.8 | 14.3 |
| WH | 23.3 | 176.4 | 47.1 | 120.7 | 7.0 | 3.1 | 2,815 | 176.5 | 47.2 |
| RA | 8.6 | 374.2 | 100.0 | 103.1 | 0.0 | 0.0 | 884 | 374.2 | 100.0 |
| BC | 3.9 | 374.2 | 100.0 | 140.1 | 0.0 | 0.0 | 545 | 374.2 | 100.0 |
| ALL | 276.9 | 40.4 | 10.8 | 151.0 | 20.7 | 3.2 | 41,816 | 45.4 | 11.3 |

## Unit Summary: SARUS 1C

| Sp | Status | Rx | N | D | DBH | BL | THT | BF <br> Gross | BF <br> Net | Defect <br> $\%$ | TPA | BA | RD | MBF <br> Net |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| BC | LIVE | CUT | 1 | ALL | 16.3 | 85 | 106 | 585 | 545 | 6.9 | 2.7 | 3.9 | 1.0 | 14.9 |
| DF | LIVE | CUT | 35 | ALL | 19.0 | 83 | 105 | 38,597 | 37,572 | 2.7 | 122.5 | 241.1 | 55.3 | $1,025.7$ |
| RA | LIVE | CUT | 1 | ALL | 12.0 | 64 | 79 | 884 | 884 | 0.0 | 10.9 | 8.6 | 2.5 | 24.1 |
| WH | LIVE | CUT | 5 | ALL | 12.2 | 59 | 78 | 2,815 | 2,815 | 0.0 | 28.7 | 23.3 | 6.7 | 76.9 |
| ALL | LIVE | CUT | 42 | ALL | 17.6 | 78 | 99 | 42,881 | 41,816 | 2.5 | 164.8 | 276.9 | 65.4 | $1,141.6$ |
| ALL | ALL | ALL | 42 | ALL | 17.6 | 78 | 99 | 42,881 | 41,816 | 2.5 | 164.8 | 276.9 | 65.4 | $1,141.6$ |

## Cruise Unit Report

## SARUS 2A

Unit Sale Notice Volume (MBF): SARUS 2A

|  |  |  | MBF Volume by Grade |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Sp | DBH | Rings/In | Age | All | 2 Saw | 3 Saw | 4 Saw | Utility |
| DF | 14.3 | 7.0 | 370 | 70 | 240 | 51 | 8 |  |
| WH | 12.9 |  | 219 | 11 | 161 | 47 |  |  |
| ALL | 13.7 | 7.0 | 589 | 81 | 401 | 98 | 8 |  |

Unit Cruise Design: SARUS 2A

| Design | Cruise <br> Acres | FMA <br> Acres | N <br> Plots | N Cruise <br> Plots | N Void <br> Plots |
| :--- | :---: | :---: | :---: | :---: | :---: |
| B2C: VR, 2 BAF (46.94, 40 for some species) <br> Measure/Count Plots, Sighting $\mathrm{Ht}=4.5 \mathrm{ft}$ | 22.5 | 23.4 | 15 | 9 | 0 |

Unit Cruise Summary: SARUS 2A

| Sp | Cruised Trees | All Trees | Trees/Plot | Ring-Count Trees |
| :--- | :---: | :---: | ---: | :---: |
| DF | 27 | 43 | 2.9 | 1 |
| WH | 15 | 25 | 1.7 | 0 |
| ALL | 42 | 68 | 4.5 | 1 |

Unit Cruise Statistics: SARUS 2A

| Sp | BA <br> $(\mathrm{sq} \mathrm{ft} / a c r e)$ | BA CV <br> $(\%)$ |  | BA SE <br> $(\%)$ | V-BAR <br> $(\mathrm{bf} / \mathrm{sq} \mathrm{ft})$ | V-BAR CV <br> $(\%)$ | V-BAR SE <br> $(\%)$ | Net Vol <br> $(\mathrm{bf} / \mathrm{acre})$ |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| DF | 134.6 | 61.7 | 15.9 | 122.2 | 16.3 | 3.1 | 16,441 | 63.8 | 16.2 |
| WH CV | 78.2 | 119.3 | 30.8 | 124.2 | 16.0 | 4.1 | 9,719 | 120.3 | 31.1 |
| ALL | 212.8 | 28.7 | 7.4 | 122.9 | 16.0 | 2.5 | 26,159 | 32.9 | 7.8 |

Unit Summary: SARUS 2A

| Sp | Status | Rx | N | D | DBH | BL | THT | BF <br> Gross | BF <br> Net | Defect <br> $\%$ | TPA | BA | RD | MBF <br> Net |
| :--- | :--- | :--- | :--- | :--- | ---: | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| DF | LIVE | CUT | 27 | ALL | 14.3 | 67 | 84 | 16,589 | 16,441 | 0.9 | 120.7 | 134.6 | 35.6 | 369.9 |
| WH | LIVE | CUT | 15 | ALL | 12.9 | 65 | 80 | 9,921 | 9,719 | 2.0 | 86.2 | 78.2 | 21.8 | 218.7 |
| ALL | LIVE | CUT | 42 | ALL | 13.7 | 66 | 83 | 26,510 | 26,159 | 1.3 | 206.9 | 212.8 | 57.4 | 588.6 |
| ALL | ALL | ALL | 42 | ALL | 13.7 | 66 | 83 | 26,510 | 26,159 | 1.3 | 206.9 | 212.8 | 57.4 | 588.6 |

## Cruise Unit Report

## SARUS 2B

Unit Sale Notice Volume (MBF): SARUS 2B

|  |  |  | MBF Volume by Grade |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Sp | DBH | Rings/In | Age | All | 2 Saw | 3 Saw | 4 Saw |
| DF | 15.0 | 7.0 | 77 | 4 | 60 | 13 |  |
| WH | 12.3 |  | 4 |  | 3 | 1 |  |
| ALL | 14.7 | 7.0 | 81 | 4 | 63 | 13 |  |

Unit Cruise Design: SARUS 2B

| Design | Cruise <br> Acres | FMA <br> Acres | N <br> Plots | N Cruise <br> Plots | N Void <br> Plots |
| :--- | :---: | :---: | :---: | :---: | :---: |
| B2: VR, 2 BAF $(46.94, ~ 40$ for some species $)$ <br> Measure All, Sighting Ht $=4.5 \mathrm{ft}$ | 2.6 | 2.7 | 3 | 3 | 0 |

Unit Cruise Summary: SARUS 2B

| Sp | Cruised Trees | All Trees | Trees/Plot | Ring-Count Trees |
| :--- | :---: | :---: | ---: | :---: |
| DF | 15 | 15 | 5.0 | 1 |
| WH | 1 | 1 | 0.3 | 0 |
| ALL | 16 | 16 | 5.3 | 1 |

Unit Cruise Statistics: SARUS 2B

| Sp | BA <br> $(\mathrm{sq} \mathrm{ft} / \mathrm{acre})$ | BA CV <br> $(\%)$ | BA SE <br> $(\%)$ | V-BAR <br> $(\mathrm{bf} / \mathrm{sq} \mathrm{ft})$ | V-BAR CV <br> $(\%)$ | V-BAR SE <br> $(\%)$ | Net Vol <br> $(\mathrm{bf} / \mathrm{acre})$ | Vol CV <br> $(\%)$ |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| DF | 234.7 | 20.0 | 11.5 | 126.1 | 8.0 | 2.1 | 29,590 | 21.5 | 111.7 |
| WH | 15.6 | 173.2 | 100.0 | 107.9 | 0.0 | 0.0 | 1,688 | 173.2 | 100.0 |
| ALL | 250.3 | 10.8 | 6.3 | 124.9 | 8.6 | 2.1 | 31,278 | 13.8 | 6.6 |

Unit Summary: SARUS 2B

| Sp | Status | Rx | N | D | DBH | BL | THT | BF <br> Gross | BF <br> Net | Defect <br> $\%$ | TPA | BA | RD | MBF <br> Net |
| :--- | :--- | :--- | ---: | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| DF | LIVE | CUT | 15 | ALL | 15.0 | 73 | 91 | 30,223 | 29,590 | 2.1 | 191.3 | 234.7 | 60.6 | 76.9 |
| WH | LIVE | CUT | 1 | ALL | 12.3 | 60 | 73 | 1,688 | 1,688 | 0.0 | 19.0 | 15.6 | 4.5 | 4.4 |
| ALL | LIVE | CUT | 16 | ALL | 14.8 | 72 | 90 | 31,911 | 31,278 | 2.0 | 210.3 | 250.3 | 65.1 | 81.3 |
| ALL | ALL | ALL | 16 | ALL | 14.8 | 72 | 90 | 31,911 | 31,278 | 2.0 | 210.3 | 250.3 | 65.1 | 81.3 |

## Cruise Unit Report

## SARUS 2C

Unit Sale Notice Volume (MBF): SARUS 2C

|  |  |  | MBF Volume by Grade |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Sp | DBH | Rings/In | Age | All | 2 Saw | 3 Saw | 4 Saw |
| DF | 18.7 | 7.0 | 39 | 25 | 10 | 4 |  |
| WH | 15.2 |  | 37 | 6 | 28 | 4 |  |
| ALL | 16.6 | 7.0 | 77 | 31 | 38 | 8 |  |

Unit Cruise Design: SARUS 2C

| Design | Cruise <br> Acres | FMA <br> Acres | N <br> Plots | N Cruise <br> Plots | N Void <br> Plots |
| :--- | :---: | :---: | :---: | :---: | :---: |
| B2: VR, 2 BAF $(54.44, ~ 40$ for some species $)$ <br> Measure All, Sighting $\mathrm{Ht}=4.5 \mathrm{ft}$ | 2.7 | 2.8 | 3 | 3 | 0 |

Unit Cruise Summary: SARUS 2C

| Sp | Cruised Trees | All Trees | Trees/Plot | Ring-Count Trees |
| :--- | :---: | :---: | ---: | :---: |
| DF | 5 | 5 | 1.7 | 1 |
| WH | 6 | 6 | 2.0 | 0 |
| ALL | 11 | 11 | 3.7 | 1 |

Unit Cruise Statistics: SARUS 2C

| Sp | BA <br> $(\mathrm{sq} \mathrm{ft/acre)})$ | BA CV <br> $(\%)$ | BA SE <br> $(\%)$ | V-BAR <br> $(\mathrm{bf} / \mathrm{sq} \mathrm{ft})$ | V-BAR CV <br> $(\%)$ | V-BAR SE <br> $(\%)$ | Net Vol <br> $(\mathrm{bf} / \mathrm{acre})$ | Vol CV <br> $(\%)$ | Vol SE <br> $(\%)$ |
| :--- | ---: | ---: | :---: | ---: | :---: | ---: | :---: | ---: | :---: |
| DF | 90.7 | 34.6 | 20.0 | 161.1 | 17.9 | 8.0 | 14,619 | 39.0 | 21.5 |
| WH | 108.9 | 50.0 | 28.9 | 127.4 | 17.2 | 7.0 | 13,869 | 52.9 | 29.7 |
| ALL | 199.6 | 31.5 | 18.2 | 142.7 | 20.8 | 6.3 | 28,488 | 37.8 | 19.2 |

Unit Summary: SARUS 2C

| Sp | Status | Rx | N | D | DBH | BL | THT | BF <br> Gross | BF <br> Net | Defect <br> $\%$ | TPA | BA | RD | MBF <br> Net |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| DF | LIVE | CUT | 5 | ALL | 18.7 | 85 | 108 | 14,881 | 14,619 | 1.8 | 47.6 | 90.7 | 21.0 | 39.5 |
| WH | LIVE | CUT | 6 | ALL | 15.2 | 70 | 87 | 14,355 | 13,869 | 3.4 | 86.4 | 108.9 | 27.9 | 37.4 |
| ALL | LIVE | CUT | 11 | ALL | 16.5 | 76 | 95 | 29,237 | 28,488 | 2.6 | 134.0 | 199.6 | 48.9 | 76.9 |
| ALL | ALL | ALL | 11 | ALL | 16.5 | 76 | 95 | 29,237 | 28,488 | 2.6 | 134.0 | 199.6 | 48.9 | 76.9 |

## Cruise Unit Report <br> SARUS 3

Unit Sale Notice Volume (MBF): SARUS 3

|  |  |  | MBF Volume by Grade |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Sp | DBH | Rings/In | Age | All | 2 Saw | 3 Saw | 4 Saw |  |
| UFtility |  |  |  |  |  |  |  |  |
| WH | 19.3 | 7.0 | 573 | 366 | 195 | 9 | 3 |  |
| ALL | 15.5 |  | 61 | 21 | 40 |  |  |  |

Unit Cruise Design: SARUS 3

| Design | Cruise <br> Acres | FMA <br> Acres | N <br> Plots | N Cruise <br> Plots | N Void <br> Plots |
| :--- | :---: | :---: | :---: | :---: | :---: |
| B2C: VR, 2 BAF $(54.44, ~ 40$ for some species $)$ <br> Measure/Count Plots, Sighting $\mathrm{Ht}=4.5 \mathrm{ft}$ | 16.4 | 18.5 | 14 | 7 | 0 |

Unit Cruise Summary: SARUS 3

| Sp | Cruised Trees | All Trees | Trees/Plot | Ring-Count Trees |
| :--- | :---: | :---: | ---: | :---: |
| DF | 31 | 58 | 4.1 | 1 |
| WH | 5 | 7 | 0.5 | 0 |
| ALL | 36 | 65 | 4.6 | 1 |

Unit Cruise Statistics: SARUS 3

| Sp | BA <br> $(\mathrm{sq} \mathrm{ft} / \mathrm{acre})$ | BA CV <br> $(\%)$ |  | BA SE <br> $(\%)$ | V-BAR <br> $(\mathrm{bf} / \mathrm{sq} \mathrm{ft})$ | V-BAR CV <br> $(\%)$ | V-BAR SE <br> $(\%)$ | Net Vol <br> $(\mathrm{bf} / \mathrm{acre})$ |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| DF | 225.5 | 26.5 | 7.1 | 155.0 | 14.2 | 2.6 | 34,954 | 30.1 | 7.5 |
| WH CV | 27.2 | 171.0 | 45.7 | 137.5 | 26.6 | 11.9 | 3,744 | 173.0 | 47.2 |
| ALL | 252.8 | 27.5 | 7.4 | 153.1 | 16.1 | 2.7 | 38,698 | 31.9 | 7.8 |

Unit Summary: SARUS 3

| Sp | Status | Rx | N | D | DBH | BL | THT | BF <br> Gross | BF <br> Net | Defect <br> $\%$ | TPA | BA | RD | MBF <br> Net |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| DF | LIVE | CUT | 31 | ALL | 19.3 | 84 | 107 | 35,179 | 34,954 | 0.6 | 111.0 | 225.5 | 51.3 | 573.3 |
| WH | LIVE | CUT | 5 | ALL | 15.5 | 68 | 89 | 3,744 | 3,744 | 0.0 | 20.8 | 27.2 | 6.9 | 61.4 |
| ALL | LIVE | CUT | 36 | ALL | 18.8 | 82 | 104 | 38,923 | 38,698 | 0.6 | 131.8 | 252.8 | 58.3 | 634.6 |
| ALL | ALL | ALL | 36 | ALL | 18.8 | 82 | 104 | 38,923 | 38,698 | 0.6 | 131.8 | 252.8 | 58.3 | 634.6 |

## Cruise Unit Report

SARUS ROW 1

Unit Sale Notice Volume (MBF): SARUS ROW 1

|  |  |  | MBF Volume by Grade |  |  |  |
| :--- | :--- | :--- | :--- | ---: | ---: | ---: |
| Sp | DBH | Rings/In | Age | All | 3 Saw | 4 Saw |
| DF | 10.9 |  | 5 | 4 | 2 |  |
| ALL | 10.9 |  | 5 | 4 | 2 |  |

Unit Cruise Design: SARUS ROW 1

| Design | Cruise <br> Acres | FMA <br> Acres | N <br> Plots | N Cruise <br> Plots | N Void <br> Plots |
| :--- | :---: | :---: | :---: | :---: | :---: |
| B1: VR, 1 BAF (40) Measure All, Sighting Ht <br> $=4.5 \mathrm{ft}$ | 0.5 | 0.5 | 2 | 2 | 0 |

Unit Cruise Summary: SARUS ROW 1

| Sp | Cruised Trees | All Trees | Trees/Plot | Ring-Count Trees |
| :--- | :---: | :---: | ---: | :---: |
| DF | 6 | 6 | 3.0 | 0 |
| ALL | 6 | 6 | 3.0 | 0 |

Unit Cruise Statistics: SARUS ROW 1

| Sp | BA (sq ft/acre) | BA CV (\%) | BA SE <br> (\%) | V-BAR <br> (bf/sq ft) | V-BAR CV <br> (\%) | V-BAR SE <br> (\%) | Net Vol (bf/acre) | Vol CV <br> (\%) | Vol SE <br> (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DF | 120.0 | 0.0 | 0.0 | 90.9 | 18.7 | 7.6 | 10,905 | 18.7 | 7.6 |
| ALL | 120.0 | 0.0 | 0.0 | 90.9 | 18.7 | 7.6 | 10,905 | 18.7 | 7.6 |

Unit Summary: SARUS ROW 1

| Sp | Status | Rx | N | D | DBH | BL | THT | BF Gross | BF Net | Defect \% | TPA | BA | RD | MBF Net |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| DF | LIVE | CUT | 6 | ALL | 10.9 | 54 | 66 | 10,905 | 10,905 | 0.0 | 185.2 | 120.0 | 36.3 | 5.5 |
| ALL | LIVE | CUT | 6 | ALL | 10.9 | 54 | 66 | 10,905 | 10,905 | 0.0 | 185.2 | 120.0 | 36.3 | 5.5 |
| ALL | ALL | ALL | 6 | ALL | 10.9 | 54 | 66 | 10,905 | 10,905 | 0.0 | 185.2 | 120.0 | 36.3 | 5.5 |

## Cruise Unit Report

SARUS ROW 2

Unit Sale Notice Volume (MBF): SARUS ROW 2

|  |  |  | MBF Volume by Grade |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Sp | DBH | Rings/In | Age | All | 2 Saw | 3 Saw |
| 4 Saw |  |  |  |  |  |  |
| RA | 12.6 | 19 |  |  | 19 |  |
| DF | 23.3 | 14 | 10 | 4 | 1 |  |
| WH | 16.9 | 12 |  | 10 | 2 |  |
| RC | 13.0 | 4 |  | 4 |  |  |
| ALL | 14.3 | 49 | 10 | 18 | 21 |  |

Unit Cruise Design: SARUS ROW 2

| Design | Cruise <br> Acres | FMA <br> Acres | N <br> Plots | N Cruise <br> Plots | N Void <br> Plots |
| :--- | ---: | :---: | :---: | :---: | :---: |
| B2: VR, 2 BAF $(46.94,40$ for some species $)$ <br> Measure All, Sighting Ht $=4.5 \mathrm{ft}$ | 4.8 | 4.8 | 3 | 3 | 0 |

Unit Cruise Summary: SARUS ROW 2

| Sp | Cruised Trees | All Trees | Trees/Plot | Ring-Count Trees |
| :--- | :---: | :---: | ---: | :---: |
| RA | 4 | 4 | 1.3 | 0 |
| DF | 1 | 1 | 0.3 | 0 |
| WH | 2 | 2 | 0.7 | 0 |
| RC | 1 | 1 | 0.3 | 0 |
| ALL | 8 | 8 | 2.7 | 0 |

Unit Cruise Statistics: SARUS ROW 2

| Sp | BA <br> $(\mathrm{sq} \mathrm{ft} / \mathrm{acre})$ | BA CV <br> $(\%)$ |  | BA SE <br> $(\%)$ | V-BAR <br> $(\mathrm{bf} / \mathrm{sq} \mathrm{ft})$ | V-BAR CV <br> $(\%)$ | V-BAR SE <br> $(\%)$ | Net Vol <br> $(\mathrm{bf} / \mathrm{acre})$ | Vol CV <br> $(\%)$ |  | Vol SE <br> $(\%)$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :---: | :---: |
| RA | 53.3 | 173.2 | 100.0 | 72.7 | 6.0 | 3.0 | 3,879 | 173.3 | 100.0 |  |  |
| DF | 15.6 | 173.2 | 100.0 | 188.8 | 0.0 | 0.0 | 2,953 | 173.2 | 100.0 |  |  |
| WH | 31.3 | 86.6 | 50.0 | 80.8 | 84.6 | 59.8 | 2,528 | 121.1 | 78.0 |  |  |
| RC | 13.3 | 173.2 | 100.0 | 61.8 | 0.0 | 0.0 | 825 | 173.2 | 100.0 |  |  |
| ALL | 113.6 | 69.0 | 39.8 | 89.6 | 54.3 | 19.2 | 10,184 | 87.8 | 44.2 |  |  |

Unit Summary: SARUS ROW 2

| Sp | Status | Rx | N | D | DBH | BL | THT | BF Gross | BF Net | Defect \% | TPA | BA | RD | MBF Net |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| DF | LIVE | CUT | 1 | ALL | 23.3 | 98 | 125 | 3,059 | 2,953 | 3.5 | 5.3 | 15.6 | 3.2 | 14.2 |
| RA | LIVE | CUT | 4 | ALL | 12.6 | 61 | 75 | 3,951 | 3,879 | 1.8 | 61.6 | 53.3 | 15.0 | 18.6 |
| RC | LIVE | CUT | 1 | ALL | 13.0 | 45 | 55 | 825 | 825 | 0.0 | 14.5 | 13.3 | 3.7 | 4.0 |
| WH | LIVE | CUT | 2 | ALL | 16.9 | 75 | 93 | 4,244 | 2,528 | 40.4 | 20.1 | 31.3 | 7.6 | 12.1 |
| ALL | LIVE | CUT | 8 | ALL | 14.3 | 63 | 78 | 12,079 | 10,184 | 15.7 | 101.5 | 113.6 | 29.6 | 48.9 |
| ALL | ALL | ALL | 8 | ALL | 14.3 | 63 | 78 | 12,079 | 10,184 | 15.7 | 101.5 | 113.6 | 29.6 | 48.9 |

## Sarus Timber Sale



## Sarus Timber Sale




## Forest Practices Application/Notification Notice of Decision

FPA/N No: 2819312
Effective Date: 3/26/2024
Expiration Date: 3/26/2027
Shut Down Zone: 656/658
EARR Tax Credit: $\boxtimes$ Eligible $\square$ Non-eligible
Reference: Sarus

## Decision

```
Notification Accepted
区 Approved
\(\square\) Disapproved
```

```Withdrawn
```

```Closed
```

FPA/N ClassificationClass II $\boxtimes$ Class III

Operations shall not begin before the effective date.
This Forest Practices Application is subject to the conditions listed below.
This Forest Practices Application is disapproved for the reasons listed below.
Applicant has withdrawn the Forest Practices Application/Notification (FPA/N).
All forest practices obligations are met.

## Conditions on Approval/Reasons for Disapproval

## Timing Limitations on Type $S$ and $F$ water(s):

All work below the ordinary high-water line shall only occur between July 16 and September 15.

## Condition(s) required for approval/disapproval:

Notify the Department of Natural Resources Forest Practices Forester at least 2 business days before beginning work in Type $S$ or $F$ water(s). Provide the application number and legal description for your activity.


## Appeal Information

You have thirty (30) days to file (i.e., actually deliver) an appeal in writing of this Decision and any related State Environmental Policy Act (SEPA) determinations to the Pollution Control Hearings Board, the Attorney General's Office, and the Department of Natural Resources' region office. See RCW 76.09.205. The appeal period starts when the applicant receives this decision, which usually happens electronically on the date indicated below.

You must file your appeal at all three addresses below:

| Pollution Control Hearings Board | Office of the Attorney General Natural Resources Division | Department Of Natural Resources Northwest Region |
| :---: | :---: | :---: |
| Physical Address | Physical Address | Physical Address |
| 1111 Israel Road SW Suite 301 | 1125 Washington Street, SE | 919 North Township Street |
| Tumwater, WA 98501 | Olympia, WA 98504 | Sedro-Woolley, WA 98284 |
| Mailing address | Mailing Address | Mailing Address |
| Post Office Box 40903 | Post Office Box 40100 | 919 North Township Street |
| Olympia, WA 98504-0903 | Olympia, WA 98504-0100 | Sedro-Woolley, WA 98284 |

Information regarding the Pollution Control Hearings Board can be found at: https://eluho.wa.gov/

## Other Applicable Laws

Operating as described in this application/notification does not ensure compliance with the Endangered Species Act, or other federal, state, or local laws.

## Iransfer of Forest Practices Application/Notification (WAC 222-20-010)

Use the "Notice of Transfer of Approved Forest Practices Application/Notification" form. This form is available at region offices and on the Forest Practices website https://www.dnr.wa.gov/programs-and-services/forest-practices/review-applications-fpars/forest-practices-forms-and. Notify DNR of new Operators within 48 hours.

## Continuing Forestland Obligations (RCW 76,09.060, RCW 76.09.070. RCW 76.09.390, and WAC 222-20-055)

Obligations include reforestation, road maintenance and abandonment plans, conversions of forestland to non- forestry use and/or harvest strategies on perennial non-fish habitat (Type Np) waters in Eastern Washington.
Before the sale or transfer of land or perpetual timber rights subject to continuing forest and obligations, the seller must notify the buyer of such an obligation on a form titled "Notice of Continuing Forest Land Obligation". The seller and buyer must both sign the "Notice of Continuing Forest Land Obligation" form and send it to the DNR Region Office for retention. This form is available at DNR region offices.

If the seller fails to notify the buyer about the continuing forestland obligation, the seller must pay the buyer's costs related to continuing forestland obligations, including all legal costs and reasonable attorneys' fees incurred by the buyer in enforcing the continuing forestland obligation against the seller.
Failure by the seller to send the required notice to DNR at the time of sale will be prima facie evidence in an action by the buyer against the seller for costs related to the continuing forestland obligation prior to sale.

## DNR Declaration of Mailing

I Choose an item., caused the Notice of Decision for FPA/N No. To be placed in the United States mail at SedroWoolley, WA; postage paid. I declare under penalty of perjury of the laws of the State of Washington, that the foregoing is true and correct.



STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

# SARUS TIMBER SALE ROAD PLAN <br> SKAGIT COUNTY <br> CLEAR LAKE DISTRICT <br> NORTHWEST REGION 

AGREEMENT NO.: 30-104686
STAFF ENGINEER: J. WESTRA

DATE: JULY 10, 2023

## SECTION 0 - SCOPE OF PROJECT

0-1 ROAD PLAN SCOPE
Clauses in this road plan apply to all road related work, including landings and rock source development, unless otherwise noted.

## 0-2 REQUIRED ROADS

The specified work on the following roads is required.

| $\underline{\text { Road }}$ | $\underline{\text { Stations }}$ | Type |
| :---: | :---: | :---: |
| CN-ML | $266+34$ to $268+11$ | PREHAUL MAINTENANCE |
| CN-47 | $0+00$ to $6+95$ | PREHAUL MAINTENANCE |
| CN-4702 | $0+00$ to $6+53$ | RECONSTRUCTION |
| CN-4702 | $6+53$ to $16+88$ | CONSTRUCTION |
| CN-4702-02 | $0+00$ to $5+70$ | CONSTRUCTION |
| CN-54 | $0+00$ to $16+78$ | RECONSTRUCTION |
| LK-ML | $0+00$ to $83+36$ | PREHAUL MAINTENANCE |
| LK-ML | $83+36$ to $143+38$ |  |
| LK-ML $102+57$ | RECONSTRUCTION |  |
| LK-27 | $102+57$ to $124+65$ | CONSTRUCTION |
|  | $0+00$ to $4+83$ | CONSTRUCTION |

## 0-3 OPTIONAL ROADS

The specified work on the following roads is not required. Any optional roads built by the Purchaser must meet all the specifications in the road plan.

| $\frac{\text { Road }}{}$ Stations | Type |  |
| :---: | :---: | :---: |
| CN-32 | $0+00$ to $2+64$ | CONSTRUCTION |
| CN-54 | $16+78$ to $36+32$ | RECONSTRUCTION |
| CN-5403 | $0+00$ to $14+70$ | CONSTRUCTION |
| LK-24 | $0+00$ to $12+97$ | CONSTRUCTION |

## 0-4 CONSTRUCTION

Construction may include, but is not limited to clearing, grubbing, excavation and embankment to subgrade, landing and turnout construction, culvert installation and application of 3 -inch-minus ballast.

## 0-5 RECONSTRUCTION

Reconstruction includes, but is not limited to clearing, grubbing, excavation and embankment to subgrade, landing and turnout construction, culvert installation and application of 3 -inch-minus ballast.

0-6 PRE-HAUL MAINTENANCE
This project includes, but is not limited to the following pre-haul maintenance requirements:

| Road | Stations | Requirements |
| :---: | :---: | :---: |
| CN-ML | 266+34 to 268+11 | - Culvert replacement and installation <br> - Application of 3" crushed rock |
| CN-47 | 0+00 to 6+95 | - Rip potholes, grade <br> - Application of 3 " of crushed rock |
| LK-ML | 0+00 to 83+36 | - Grade and rip potholes <br> - Application of 3" of crushed rock <br> - Bridge maintenance |
| LK-ML | 110+67 to 129+40 | - Rip potholes, remove waterbars, grade <br> - Application of 3" of crushed rock <br> - Turnout construction |

## 0-7 POST-HAUL MAINTENANCE

This project includes post-haul road maintenance listed in Clause 9-5 POST-HAUL MAINTENANCE.

## 0-10 ABANDONMENT

This project includes abandonment listed in Clause 9-21 ROAD ABANDONMENT.

## 0-12 DEVELOP ROCK SOURCE

Purchaser may develop existing rock sources. Rock source development will involve drilling, shooting and processing rock. Work for developing rock sources is listed in Section 6 ROCK AND SURFACING.

## 0-13 STRUCTURES

Purchaser shall provide and install a 66" equivalent pipe-arch fish passable culvert and a tubular steel gate. Requirements for these structures are listed in Section 7
STRUCTURES.

## SECTION 1 - GENERAL

## 1-1 ROAD PLAN CHANGES

If the Purchaser desires a change from this road plan including, but not limited to, relocation, extension, change in design, or adding roads; a revised road plan must be submitted in writing to the Contract Administrator for consideration. Before work begins, Purchaser shall obtain approval from the State for the submitted plan.

## 1-2 UNFORESEEN CONDITIONS

Quantities established in this road plan are minimum acceptable values. Additional quantities required by the state due to unforeseen conditions, or Purchaser's choice of construction season or techniques will be at the Purchaser's expense. Unforeseen conditions include, but are not limited to, solid subsurface rock, subsurface springs, saturated ground, and unstable soils.

## 1-3 ROAD DIMENSIONS

Purchaser shall perform road work in accordance with the dimensions shown on the TYPICAL SECTION SHEET and the specifications within this road plan or design data (plan, profile, and cross-sections).

1-4 ROAD TOLERANCES
Purchaser shall perform road work within the tolerances listed below. The tolerance class for each road is listed on the TYPICAL SECTION SHEET.

| Tolerance Class | $\underline{\text { A }}$ | $\underline{B}$ | $\underline{\mathrm{C}}$ |
| :--- | :---: | :---: | :---: |
| Road and Subgrade Width (feet) | +1.5 | +1.5 | +2.0 |
| Subgrade Elevation (feet + /-) | 0.5 | 1.0 | 2.0 |
| Centerline alignment (feet lt./rt.) | 1.0 | 1.5 | 3.0 |

## 1-5 DESIGN DATA

Fish culvert installation design data is available upon request at the Department of Natural Resources NW Region Office in Sedro Woolley, WA.

## 1-6 ORDER OF PRECEDENCE

Any conflict or inconsistency in the road plan will be resolved by giving the documents precedence in the following order:

1. Addenda.
2. Designs or Plans. On designs and plans, figured dimensions shall take precedence over scaled dimensions.
3. Road Plan Clauses.
4. Typical Section Sheet.
5. Standard Lists.
6. Standard Details.

In case of any ambiguity or dispute over interpreting the road plan, the Contract
Administrator's or designee's decision will be final.

## 1-8 REPAIR OR REPLACEMENT OF DAMAGED MATERIALS

Purchaser shall repair or replace all materials, roadway infrastructure, and road components damaged during road work or operation activities. The Contract Administrator will direct repairs and replacements. Repairs to structural materials must be made in accordance with the manufacturer's recommendation.

## 1-9 DAMAGED METALLIC COATING

Any cut ends, or damaged galvanized or aluminized coating on existing or new bridge components, culverts, downspouts, and flumes must be cleaned and treated with a minimum of two coats of zinc rich paint or cold galvanizing compound.

## 1-15 ROAD MARKING

Purchaser shall perform road work in accordance with the state's marked location. All road work is marked as follows:

- Orange flagging and/or stakes for road centerline


## 1-18 REFERENCE POINT DAMAGE

Purchaser shall reset reference points (RPs) that were moved or damaged at any time during construction to their original locations. Excavation and embankment may not proceed on road segments controlled by said RPs until Purchaser resets all moved or damaged RPs.

1-21 HAUL APPROVAL
Purchaser shall not use roads under this road plan for any hauling other than timber cut on the right-of-way, without written approval from the Contract Administrator.

## 1-22 WORK NOTIFICATIONS

Purchaser shall notify the Contract Administrator a minimum of 3 business days before work begins.

## 1-23 ROAD WORK PHASE APPROVAL

Purchaser shall obtain written approval from the Contract Administrator upon completion of each of the following phases of road work:

- Subgrade construction and compaction
- Drainage installation
- Rock application and compaction


## 1-25 ACTIVITY TIMING RESTRICTION

The specified activities are not allowed during the listed closure period unless authorized in writing by the Contract Administrator.

| $\underline{\text { Road }}$ | Activity | $\underline{\text { Closure Period }}$ |
| :---: | :---: | :---: |
| ALL ROADS | ALL ACTIVITIES | November 1 to March 31 |
| CN-ML | FISH CULVERT INSTALLATION | October 1 to July 14 |
| *CN-54 | *ALL ACTIVITIES | *October 1 to June 15 |

*Fish window for temporary culverts, not waivable by Contract Administrator.

## 1-26 OPERATING DURING CLOSURE PERIOD

If permission is granted to operate during a closure period listed in Clause 1-25 ACTIVITY TIMING RESTRICTION, Purchaser shall provide a maintenance plan to include further protection of state resources. Purchaser shall obtain written approval from the Contract Administrator for the maintenance plan, and shall put preventative measures in place before operating during the closure period. Purchaser is required to maintain all haul roads at their own expense including those listed in Contract Clause C-060 DESIGNATED ROAD MAINTAINER. If other operators are using, or desire to use these designated maintainer roads, a joint operating plan must be developed. All parties shall follow this plan.

Purchaser's maintenance plan must include a total volume of rock that will be provided at the Purchaser's expense in addition to what is specified in this road plan. This rock shall be available before permission is granted to operate during the closure period and will be used as necessary along the haul route. The Contract Administrator may direct the Purchaser where to apply this maintenance rock.

Rock from stockpiles may not be used for out of season maintenance.

## 1-29 SEDIMENT RESTRICTION

Purchaser shall not allow silt-bearing runoff to enter any streams.

## 1-30 CLOSURE TO PREVENT DAMAGE

In accordance with Contract Clause G-220 STATE SUSPENDS OPERATION, the Contract Administrator will suspend road work or hauling right-of-way timber, forest products, or rock under the following conditions:

- Wheel track rutting exceeds 4 inches on crushed rock roads.
- Surface or base stability problems persist.
- Weather is such that satisfactory results cannot be obtained in an area of operations.
- When, in the opinion of the Contract Administrator excessive road damage or rutting may occur.

Operations must stop unless authority to continue working or hauling is granted in writing by the Contract Administrator. In the event that surface or base stability problems persist, Purchaser shall cease operations, or perform corrective maintenance or repairs, subject to specifications within this road plan.

## 1-33 SNOW PLOWING RESTRICTION

Snowplowing will be allowed after the execution of a SNOW PLOWING AGREEMENT, which is available from the Contact Administrator upon request. If damage occurs while plowing, further permission to plow may be revoked by the Contract Administrator.

## 1-40 ROAD APPROACHES TO COUNTY ROADS AND STATE HIGHWAYS

Purchaser shall immediately remove any mud, dirt, rock, or other material tracked or spilled on to county roads and state highways.

If additional damage to the surface, signs, guardrails, etc. occurs then the damage will be repaired, at the Purchaser's expense, as directed by the Contract Administrator when authorized by the county or WSDOT.

## SECTION 2 - MAINTENANCE

## 2-1 GENERAL ROAD MAINTENANCE

Purchaser shall maintain all roads used under this contract in accordance with the FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS for the entire term of this contract. Maintenance is required even during periods of inactivity.

## 2-2 ROAD MAINTENANCE - PURCHASER MAINTENANCE

Purchaser shall perform maintenance on roads listed in Contract Clause C-050 PURCHASER ROAD MAINTENANCE AND REPAIR in accordance with FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS.

## 2-3 ROAD MAINTENANCE - DESIGNATED MAINTAINER

Purchaser may be required to perform maintenance on roads listed in Contract Clause C-060 DESIGNATED ROAD MAINTAINER as directed by the Contract Administrator. Purchaser shall maintain roads in accordance with FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS.

## 2-4 PASSAGE OF LIGHT VEHICLES

Purchaser shall maintain all roads in a condition that will allow the passage of light administrative vehicles.

## 2-5 MAINTENANCE GRADING - EXISTING ROAD

On prehaul maintenance roads, Purchaser shall use a grader to shape the existing surface before timber haul.

$$
\text { SECTION } 3 \text { - CLEARING, GRUBBING, AND DISPOSAL }
$$

## 3-5 CLEARING

Purchaser shall fall all vegetative material larger than 2 inches DBH or over 5 feet high between the marked right-of-way boundaries and within waste and debris areas, or if not marked in the field, between the clearing limits specified on the TYPICAL SECTION SHEET. Clearing must be completed before starting excavation and embankment.

## 3-8 PROHIBITED DECKING AREAS

Purchaser shall not deck right-of-way timber in the following areas:

- Within the grubbing limits.
- Within 50 feet of any stream.
- In locations that interfere with the construction of the road prism.
- In locations that impede drainage.
- On slopes greater than $50 \%$.
- Against standing trees.


## 3-10 GRUBBING

Purchaser shall remove all stumps between the grubbing limits specified on the TYPICAL SECTION SHEET. Purchaser shall also remove stumps with undercut roots outside the grubbing limits. Grubbing must be completed before starting excavation and embankment.

## 3-20 ORGANIC DEBRIS DEFINITION

Organic debris is defined as all vegetative material not eligible for removal by Contract Clause G-010 PRODUCTS SOLD AND SALE AREA or G-011 RIGHT TO REMOVE FOREST PRODUCTS AND CONTRACT AREA, that is larger than one cubic foot in volume within the clearing limits as shown on the TYPICAL SECTION SHEET and BRUSHING DETAIL.

## 3-21 DISPOSAL COMPLETION

Purchaser shall remove organic debris from the road surface, ditchlines, and culvert inlets and outlets. Purchaser shall complete all disposal of organic debris before the application of rock.

## 3-23 PROHIBITED DISPOSAL AREAS

Purchaser shall not place organic debris in the following areas:

- Within 50 feet of a cross drain culvert.
- Within 100 feet of a live stream, or wetland
- On road subgrades, or excavation and embankment slopes.
- On slopes greater than $50 \%$.
- Within the operational area for cable landings where debris may shift or roll.
- On locations where brush can fall into the ditch or onto the road surface.
- Against standing timber.


## 3-24 BURYING ORGANIC DEBRIS RESTRICTED

Purchaser shall not bury organic debris unless otherwise stated in this plan.

## 3-25 SCATTERING ORGANIC DEBRIS

Purchaser shall scatter organic debris outside of the clearing limits in natural openings unless otherwise detailed in this road plan.

## SECTION 4 - EXCAVATION

## 4-2 PIONEERING

Pioneering may not extend past construction that will be completed during the current construction season. Pioneering may not extend more than 500 feet beyond completed construction unless approved in writing by the Contract Administrator. In addition, the following actions must be taken as pioneering progresses:

- Drainage must be provided on all uncompleted construction.
- Road pioneering operations may not undercut the final cut slope or restrict drainage.
- Culverts at live stream crossings must be installed during pioneering operations prior to embankment.


## 4-3 ROAD GRADE AND ALIGNMENT STANDARDS

Purchaser shall follow these standards for road grade and alignment:

- Grade and alignment must have smooth continuity, without abrupt changes in direction.
- Maximum grades may not exceed 18 percent favorable and 15 percent adverse.
- Minimum curve radius is 60 feet at centerline.
- Maximum grade change for sag vertical curves is $5 \%$ in 100 feet.
- Maximum grade change for crest vertical curves is $4 \%$ in 100 feet.


## 4-4 SWITCHBACK STANDARDS

A switchback is defined as a curved segment of road between a beginning and end of the same curve, where the change of traffic travel direction is greater than 90 degrees. Purchaser shall follow these standards for switchbacks:

- Maximum adverse grades for switchbacks is $10 \%$.
- Maximum favorable grades for switchbacks is $12 \%$.
- Maximum transition grades entering and leaving switchbacks is a $5 \%$ grade change.
- Transition grades required to meet switchback grade limitations must be constructed on the tangents preceding and departing from the switchbacks.


## 4-5 CUT SLOPE RATIO

Purchaser shall construct excavation slopes no steeper than shown on the following table:

|  | Excavation <br> Material Type | Excavation Slope <br>  <br> Clope Ratio | $\frac{\text { Percent }}{}$ |
| :--- | :---: | :---: | :---: |
| Common Earth (on side slopes up to 55\%) | $1: 1$ |  | 100 |
| Common Earth (on side slopes 56-70\%) | $3 / 1: 1$ |  | 150 |
| Fractured or loose rock | $1 / 2: 1$ | 200 |  |
| Hardpan or solid rock | $11 /: 1$ | 400 |  |

## 4-6 EMBANKMENT SLOPE RATIO

Purchaser shall construct embankment slopes no steeper than shown on the following table:

|  | Embankment | Embankment |
| :---: | :---: | :---: |
| Material Type | Slope Ratio | Slope Percent |
| Sandy Soils | 2:1 | 50 |
| Common Earth and Rounded Gravel | 11/2:1 | 67 |
| Angular Rock | 1114:1 | 80 |

## 4-7 SHAPING CUT AND FILL SLOPE

Purchaser shall construct excavation and embankment slopes to a uniform line and left rough for easier revegetation.

## 4-8 CURVE WIDENING

The minimum widening placed on the inside of curves is:

- 6 feet for curves of 50 to 79 feet radius.
- 4 feet for curves of 80 to 100 feet radius.


## 4-9 EMBANKMENT WIDENING

The minimum embankment widening is:

- 2 feet for embankment heights at centerline of 2 to 6 feet.
- 4 feet for embankment heights at centerline of greater than 6 feet.

Purchaser shall apply embankment widening equally to both sides of the road to achieve the required width.

## 4-21 TURNOUTS

Purchaser shall construct turnouts intervisible with a maximum distance of 1,000 feet between turnouts unless otherwise shown on drawings. Locations may be adjusted to fit the final subgrade alignment and sight distances. Locations are subject to written approval by the Contract Administrator. Minimum dimensions are shown on the TYPICAL SECTION SHEET.

## 4-22 TURNAROUNDS

Purchaser shall construct turnarounds in accordance with the TURNAROUND DETAIL on all roads. Turnarounds must be no larger than 30 feet long and 30 feet wide. Locations are subject to written approval by the Contract Administrator.

## 4-25 DITCH CONSTRUCTION AND RECONSTRUCTION

Purchaser shall construct or reconstruct ditches into the subgrade as specified on the TYPICAL SECTION SHEET. Ditches must be constructed concurrently with construction of the subgrade.

4-27 DITCH WORK - MATERIAL USE PROHIBITED
Purchaser shall not pull ditch material across the road or mix in with the road surface.
Excavated material must be end hauled to the location specified in Clauses 4-36 through 4-38.

## 4-28 DITCH DRAINAGE

Ditches must drain to cross-drain culverts or ditchouts.

## 4-29 DITCHOUTS

Purchaser shall construct ditchouts as identified on the MATERIALS LIST and as needed and as directed by the Contract Administrator. Ditchouts must be constructed in a manner that diverts ditch water onto the forest floor and must have excavation backslopes no steeper than a 1:1 ratio.

## 4-35 WASTE MATERIAL DEFINITION

Waste material is defined as all dirt, rock, mud, or related material that is extraneous or unsuitable for construction material. Waste material, as used in Section 4 EXCAVATION, is not organic debris.

## 4-36 DISPOSAL OF WASTE MATERIAL

Purchaser may sidecast waste material on side slopes up to $55 \%$ if the waste material is compacted and free of organic debris. On side slopes greater than $55 \%$, all waste material must be end hauled or pushed to the designated embankment sites identified by the Contract administrator.

## 4-38 PROHIBITED WASTE DISPOSAL AREAS

Purchaser shall not deposit waste material in the following areas:

- Within 50 feet of a cross drain culvert.
- Within 100 feet of a live stream or wetland.
- In locations that interfere with the construction of the road prism.
- In locations that impede drainage.
- Against standing timber.
- Outside the clearing limits.


## 4-55 ROAD SHAPING

Purchaser shall shape the subgrade and surface as shown on the TYPICAL SECTION SHEET. The subgrade and surface shape must ensure runoff in an even, un-concentrated manner, and must be uniform, firm, and rut-free.

## 4-60 FILL COMPACTION

Purchaser shall compact all embankment and waste material by routing equipment over the entire width of each lift.

## 4-61 SUBGRADE COMPACTION

Purchaser shall compact constructed and reconstructed subgrades by routing equipment over the entire width.

SECTION 5 - DRAINAGE

## 5-5 CULVERTS

Purchaser shall install culverts as part of this contract. Culverts must be installed concurrently with subgrade work and must be installed before subgrade compaction and rock application. Culvert locations and the minimum requirements for culvert length and diameter are designated on MATERIALS LIST. Culvert, downspout, and flume lengths may be adjusted to fit as-built conditions and may not terminate directly on unprotected soil. Culverts must be new material and must meet the specifications in Clauses 10-15 through 10-24.

## 5-8 TEMPORARY STREAM CULVERT INSTALLATION

Purchaser shall install temporary culverts as listed in the MATERIALS LIST. Temporary stream culverts must be located in the natural channel of the stream. Temporary culverts must be removed as indicated in Clause 1-25 ACTIVITY TIMING RESTRICTION. Geotextile fabric must meet the specifications in Clause 10-2 GEOTEXTILE FOR SEPARATION.

| $\underline{\text { Road }}$ | $\underline{\text { Stations }}$ |  |
| :---: | :---: | :---: |
| CN-54 | $6+01$ | Lay culvert on geotextile fabric and backfill with clean |
|  | $15+10$ | fill. Remove all fill and fabric with culvert removal. |

5-12 UNUSED MATERIALS STATE PROPERTY
On required roads, any materials listed on the MATERIALS LIST that are not installed will become the property of the state. Purchaser shall stockpile materials as directed by the Contract Administrator.

## 5-13 CONTINGENCY CULVERTS

The following culverts will be supplied by the Purchaser and are available for installation as directed by the Contract Administrator.

| Road | $\frac{\text { Size }}{\text { used }}$ for timber or rock haul. |
| :---: | :---: |
| On any portion of road | Two: $18 \prime \prime \times 30^{\prime}$ culverts |

## 5-15 CULVERT INSTALLATION

Culvert installation must be in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL and the National Corrugated Metal Pipe Association's "Installation Manual for Corrugated Steel Drainage Structures" and the Corrugated Polyethylene Pipe Association's "Recommended Installation Practices for Corrugated Polyethylene Pipe and Fittings".

## 5-16 APPROVAL FOR LARGER CULVERT INSTALLATION

Purchaser shall obtain written approval from the Contract Administrator for the installation of culverts 36 inches in diameter and over before backfilling.

## 5-17 CROSS DRAIN SKEW AND SLOPE

Cross drains, on road grades in excess of 3\%, must be skewed at least 30 degrees from perpendicular to the road centerline, except where the cross drain is at the low point in the road culverts will not be skewed. Cross drain culverts must be installed at a slope steeper than the incoming ditch grade, but not less than $3 \%$ or more than $10 \%$.

## 5-18 CULVERT DEPTH OF COVER

Cross drain culverts must be installed with a depth of cover of not less than 1 foot of compacted subgrade over the top of the culvert at the shallowest point. Stream crossing culverts must be installed with a depth of cover recommended by the culvert manufacturer for the type and size of the pipe.

## 5-20 ENERGY DISSIPATERS

Purchaser shall install energy dissipaters in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL. Energy dissipater installation is subject to approval by the Contract Administrator.

The type of energy dissipater and the amount of material must be consistent with the specifications listed on the CULVERT AND DRAINAGE SPECIFICATION DETAIL.

## 5-25 CATCH BASINS

Purchaser shall construct catch basins in accordance with CULVERT AND DRAINAGE SPECIFICATION DETAIL. Minimum dimensions of catch basins are 2 feet wide and 4 feet long.

## 5-26 HEADWALLS FOR CROSS DRAIN CULVERTS

Purchaser shall construct headwalls in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL at all cross drain culverts. Rock used for headwalls must weigh at least 50 pounds. Rock must be placed on shoulders, slopes, and around culvert inlets and outlets. Rock may not restrict the flow of water into culvert inlets or catch basins. No placement by end dumping or dropping of rock is allowed.

## 5-27 ARMORING FOR STREAM CROSSING CULVERTS

At stream crossing culverts, Purchaser shall place riprap in conjunction with construction of the embankment. Rock must be placed on shoulders, slopes, and around culvert inlets and outlets as designated on the MATERIALS LIST or as directed by the Contract Administrator. Rock may not restrict the flow of water into culvert inlets or catch basins. Placement must be by zero-drop-height method only. No placement by end dumping or dropping of rock is allowed.

## SECTION 6 - ROCK AND SURFACING

## 6-2 ROCK SOURCE ON STATE LAND

Rock used in accordance with the quantities on the TYPICAL SECTION and MATERIALS LIST may be obtained from the following sources on state land at no charge to the Purchaser. Purchaser shall obtain written approval from the Contract Administrator for the use of material from any other source. If other operators are using, or desire to use the rock sources, a joint operating plan must be developed. All parties shall follow this plan.

| Source | Location | Rock Type |
| :---: | :---: | :---: |
| Acquisition Pit | $5+00$ of the LK-14 | 3-Inch Minus Ballast, Riprap |
| Foothill Pit | $61+09$ of the CN-47 | 3-Inch Minus Ballast, Riprap |
| Crane Creek Pit | $16+68$ of the CN-2006 | 2-Inch Minus Crushed Rock <br> 3-Inch Minus Ballast, Riprap |

## 6-3 ROCK SOURCE STATE LAND, EXISTING STOCKPILE

Rock used in accordance with the quantities on the TYPICAL SECTION and MATERIALS LIST may be obtained from the following existing stockpile on state land at no charge to the Purchaser. Purchaser shall not remove additional yardage without prior written approval from the Contract Administrator.

| Source | Location | Rock Type | Quantity |
| :---: | :---: | :---: | :---: |
| Crane Creek Pit | $16+68$ of the <br> CN-2006 | 2-Inch Minus <br> Crushed Rock | 1,870 |

## 6-5 ROCK FROM COMMERCIAL SOURCE

Rock used in accordance with the quantities on the TYPICAL SECTION and MATERIALS LIST may be obtained from any commercial source at the Purchaser's expense.

## 6-11 ROCK SOURCE DEVELOPMENT PLAN BY PURCHASER

Purchaser shall conduct rock source development and use at the following sources, in accordance with a written ROCK SOURCE DEVELOPMENT PLAN to be prepared by the Purchaser. The plan is subject to written approval by the Contract Administrator before any rock source operations. Upon completion of operations, the rock source must be left in the condition specified in the ROCK SOURCE DEVELOPMENT PLAN, and approved in writing by the Contract Administrator.

| Source | Rock Type |
| :---: | :---: |
| Acquisition Pit |  |
| Foothill Crane Pit | 3-Inch Minus Ballast, Riprap |
| Crane Creek Pit |  |

Rock source development plans prepared by the Purchaser must show the following information:

- Rock source location.
- Rock source overview showing access roads, development areas, stockpile locations, waste areas, and floor drainage.
- Rock source profiles showing development areas, bench locations including widths, and wall faces including heights.
- Rock source reclamation plan describing how the area will be left in a condition that will ensure public safety and minimize environmental impacts.


## 6-12 ROCK SOURCE SPECIFICATIONS

Rock sources must be in accordance with the following specifications:

- Pit walls may not be undermined or over steepened. The maximum slope of the walls must be consistent with recognized engineering standards for the type of material being excavated in accordance with the following table:

| Material | Maximum <br> Slope Ratio <br> (Horiz. :Vert.) | Maximum <br> Slope Percent |
| :---: | :---: | :---: |
| Sand | $2: 1$ | 50 |
| Gravel | $1.5: 1$ | 67 |
| Common Earth | $1: 1$ | 100 |
| Fractured Rock | $0.5: 1$ | 200 |
| Solid Rock | $0: 1$ | vertical |

- Pit walls must be maintained in a condition to minimize the possibility of the walls sliding or failing.
- The width of pit benches must be a minimum of 1.5 times the maximum length of the largest machine used.
- The surface of pit floors and benches must be uniform and free-draining at a minimum 2\% outslope gradient.
- All operations must be carried out in compliance with all regulations of the Regulations and Standards Applicable to Metal and Nonmetal Mining and Milling Operations ( 30 CFR) U.S. Department of Labor, Mine Safety and Health Administration and Safety Standards for Construction Work (296-155 WAC), Washington Department of Labor and Industries.
- All vehicle access to the top of the pit faces must be blocked.
- 


## DRILL AND SHOOT

Rock drilling and shooting must meet the following specifications:

- Oversize material remaining in the rock source at the conclusion of the timber sale may not exceed $5 \%$ of the total volume mined in that source.
- Oversize material is defined as rock fragments too large to be converted by the Purchaser to a size that will meet specifications used for the roads in this sale.
- All operations must be carried out in compliance with the Regulations and Standards Applicable to Metal and Nonmetal Mining and Milling Operations (30 CFR) U.S. Department of Labor, Mine Safety and Health Administration and the Safety Standards for Construction Work (296-155 WAC), Washington Department of Labor and Industries.
- Purchaser shall block access roads before blasting operations.


## 6-23 ROCK GRADATION TYPES

Purchaser shall provide rock in accordance with the types and amounts listed in the TYPICAL SECTION and MATERIALS LIST. Rock must meet the following specifications for gradation and uniform quality when placed in hauling vehicles or during manufacture and placement into a stockpile. The exact point of evaluation

## 6-30 2-INCH MINUS CRUSHED ROCK

\% Passing 2" square sieve 100\%
\% Passing 1" square sieve $55-75 \%$
\% Passing U.S. \#4 sieve 20-45\%
Of the fraction passing the No. 4 sieve, $40 \%$ to $60 \%$ must pass the No. 10 sieve.

The portion of aggregate retained on the No. 4 sieve may not contain more than 0.2 percent organic debris and trash. All percentages are by weight.

## 6-34 3-INCH MINUS BALLAST ROCK

Ballast rock must be 100\% equal to, or smaller than, 3 inches in at least one dimension.

Rock may contain no more than 5 percent organic debris, dirt, and trash.

## 6-44 STREAM SIMULATION ROCK

Stream simulation rock must be manufactured on site or in a rock pit by mixing the components shown below with an excavator or front-end loader.

10\% 1 - 3 inch round cobble
$90 \%$ clean fines

## 6-50 LIGHT LOOSE RIP RAP

Light loose rip rap must consist of angular, hard, sound, and durable stone. It must be free from segregation, seams, cracks, and other defects tending to destroy its resistance to weather. Light loose rip rap must be free of rock fines, soil, organic debris or other extraneous material, and must meet the following requirements:

| Quantity | Approximate Size Range |
| :---: | :---: |
| $20 \%$ to $90 \%$ | 500 lbs . to 1 ton $\left(18^{\prime \prime}-28^{\prime \prime}\right)$ |
| $15 \%$ to $80 \%$ | 50 lbs to $500 \mathrm{lbs} .\left(8^{\prime \prime}-18^{\prime \prime}\right)$ |
| $10 \%$ to $20 \%$ | 3 inch to $50 \mathrm{lbs}\left(3^{\prime \prime}-8^{\prime \prime}\right)$ |

6-51 HEAVY LOOSE RIP RAP
Heavy loose rip rap must consist of angular, hard, sound, and durable stone. It must be free from segregation, seams, cracks, and other defects tending to destroy its resistance to weather. Heavy loose rip rap must be free of rock fines, soil, organic debris or other extraneous material, and must meet the following requirements:

| Quantity | Size Range |
| :---: | :---: |
| $30 \%$ to $90 \%$ | 1 ton to 2 ton $\left(28^{\prime \prime}-36^{\prime \prime}\right)$ |
| $30 \%$ to $70 \%$ | 500 lbs to 1 ton $\left(18^{\prime \prime}-28^{\prime \prime}\right)$ |
| $20 \%$ to $50 \%$ | 50 lbs to $500 \mathrm{lbs} .\left(8^{\prime \prime}-18^{\prime \prime}\right)$ |
| $10 \%$ to $20 \%$ | 3 inch to $50 \mathrm{lbs} .\left(3^{\prime \prime}-8^{\prime \prime}\right)$ |

## 6-55 ROCK APPLICATION MEASURED BY COMPACTED DEPTH

Measurement of specified rock depths, are defined as the compacted depths using the compaction methods required in this road plan. Estimated quantities specified in the TYPICAL SECTION are loose yards. Purchaser shall apply adequate amounts of rock to meet the specified rock depths. Specified rock depths are minimum requirements, and are not subject to reduction.

APPROVAL BEFORE ROCK APPLICATION
Purchaser shall obtain written approval from the Contract Administrator for culvert installation, ditch construction, ditch reconstruction, headwall construction, and headwall reconstruction before rock application.

## 6-71 ROCK APPLICATION

Purchaser shall apply rock in accordance with the specifications and quantities shown on the TYPICAL SECTION. Rock must be spread, shaped, and compacted full width concurrent with rock hauling operations. The Contract Administrator will direct locations for rock that is to be applied as spot patching. Road surfaces must be compacted in accordance with the TYPICAL SECTION by routing equipment over the entire width.

## 6-73 ROCK FOR WIDENED PORTIONS

Purchaser shall apply rock to turnarounds, turnouts, and areas with curve widening to the same depth and specifications as the traveled way.

## SECTION 7 - STRUCTURES

## 7-6 STREAM CROSSING INSTALLATION

Purchaser shall install stream crossing structures in accordance with the manufacturer's requirements, and the CN-ML 267+60 CULVERT REPLACEMENT DESIGN.

## 7-18 INSTALLATION PRODUCTION SCHEDULE

Purchaser shall provide the Contract Administrator or their designee, with a production schedule showing projected completion dates for the following items before starting construction of the structure. Production schedule must include:

- Removal of existing culvert
- Excavation of new stream channel alignment
- Placement of fish passable culvert
- Backfill, infill of stream-sim rock, compaction and rock surfacing


## 7-19 INSTALLATION STAGE ACCEPTANCE

Purchaser shall ensure that all materials and procedures used during construction comply with the design. Purchaser shall obtain written approval from the Contract Administrator or their designee for each stage of construction, listed in Clause 7-18 INSTALLATION PRODUCTION SCHEDULE, before starting construction on the next stage.

## 7-30 BRIDGE MAINTENANCE

Purchaser shall conduct bridge maintenance as listed and as shown on the LK-ML ROSCOE BRIDGE DETAIL. Purchaser shall remove all old bridge material from state land before the termination of the contract.

| Road | Station | $\underline{\text { Requirements }}$ |
| :---: | :---: | :---: |
| LK-ML | $1+60$ to $2+10$ | Remove wood plank running surface, patch holes <br> in steel deck, install 3"x3/8" steel plate and cover <br> bridge deck with 2-inch minus crushed rock. |

## 7-55 LARGE CULVERT INSTALLATION

Purchaser shall provide and install large culverts in accordance with the CN-ML 266+84 CULVERT REPLACEMENT DESIGN. Culvert designs must meet or exceed the following specifications:

| Road | Station | Type | Material and Coating Type* | Span | Rise | Length | Corrugations and Gauge |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CN-ML | 267+60 | Arch | Galvanized Steel | 77" | 52" | $34^{\prime}$ | $3^{\prime \prime} \times 1^{\prime \prime}$ <br> 12 gauge |

* See Clause 10-15 CORRUGATED STEEL CULVERT


## 7-56 STEEL PIPE, PIPE ARCH, AND STRUCTURAL PLATE INSTALLATION

Purchaser shall install steel pipe, pipe arches, and structural plate culverts in accordance with the National Corrugated Steel Pipe Association "Installation Manual for Corrugated Steel Pipe, Pipe Arches, and Structural Plate." Installation is subject to the inspection and approval of the Contract Administrator before placement and backfill. The latest edition of the NCSPA Installation Manual can be found at www.ncspa.org.

## 7-57 CULVERT SHAPE CONTROL

Purchaser shall monitor the culvert shape during backfill and compaction. Special attention must be paid to maintaining the structure's rise dimensions, concentricity, and smooth uniform curvature. If compaction methods are resulting in peaking or deflection of the culvert, Purchaser shall modify the compaction method to achieve the appropriate end result.

## 7-58 MATERIAL INSIDE CULVERT

Purchaser shall provide and install STREAM SIMULATION rock inside the following culvert as specified in the CN-ML 267+60 CULVERT REPLACEMENT DESIGN. STREAM SIMULATION must meet the specifications in Clause 6-44 STREAM SIMULATION ROCK and quantities in the CN-ML 267+60 CULVERT REPLACEMENT DESIGN..

| Road | Stations |
| :---: | :---: |
| CN-ML | $267+60$ |

## 7-76 GATE INSTALLATION

Purchaser shall install the listed gate.

| Road | $\underline{\text { Station }}$ | Type | Provided by |
| :---: | :---: | :---: | :---: |
| LK-ML | $87+85$ | Tubular Steel with <br> Bell Housing | Purchaser |

Tubular gate installation must be in accordance with the METAL GATE DETAIL.

The gate and bell housing must be installed plumb and aligned to ensure all mating components match with precision. Each post must be filled with concrete and set in a minimum of 2 cubic yards of poured-in-place concrete.

If Purchaser wishes to install an alternate design, detailed plans for the construction of the gate must be submitted to the Contract Administrator. Purchaser shall obtain written approval for the plans from the Contract Administrator or their designee, before gate installation begins.

The gate must be primed and painted yellow.

Purchaser shall provide and place 20 cubic yards of stumps with root wads to prevent vehicles driving around the gate.

## 7-78 GATE SUPPLIED BY PURCHASER

Purchaser shall provide all gates specified for installation in Clause 7-76 GATE INSTALLATION. Purchaser shall obtain written approval for the gates from the Contract Administrator before installation.

## 8-2 PROTECTION FOR EXPOSED SOIL

Purchaser shall provide and evenly spread a 3-inch layer of straw to all exposed soils at culvert installations. Soils must be covered before the first anticipated storm event. Soils may not sit exposed during any rain event.

## 8-15 REVEGETATION

Purchaser shall spread seed and fertilizer on all exposed soils within the grubbing limits resulting from road work activities. Cover all exposed soils using manual dispersal of grass seed and fertilizer. Other methods of covering must be approved in writing by the Contract Administrator.

## 8-16 REVEGETATION SUPPLY

The Purchaser shall provide the seed and fertilizer.

## 8-17 REVEGETATION TIMING

Purchaser shall revegetate during the first available opportunity after road work is completed. Soils may not be allowed to sit exposed for longer than one month without receiving revegetation treatment unless otherwise approved in writing by the Contract Administrator.

## 8-18 PROTECTION FOR SEED

Purchaser shall provide a protective cover for seed if revegetation occurs between July 1 and March 31. The protective cover may consist of dispersed straw, jute matting, or clear plastic sheets. The protective cover requirement may be waived in writing by the Contract Administrator if Purchaser is able to demonstrate a revegetation plan that will result in the establishment of a uniform dense crop (at least 50\% coverage) of 3-inch tall grass by October 31.

## 8-19 ASSURANCE FOR SEEDED AREA

Purchaser shall ensure the growth of a uniform and dense crop (at least $50 \%$ coverage) of 3-inch tall grass. Purchaser shall reapply the grass seed and fertilizer in areas that have failed to germinate or have been damaged through any cause. Restore eroded or disturbed areas, clean up and properly dispose of eroded materials, and reapply the seed and fertilizer at no addition cost to the state.

## 8-25 GRASS SEED

Purchaser shall evenly spread the seed mixture listed below on all exposed soil inside the grubbing limits at a rate of 50 pounds per acre of exposed soil. Grass seed must meet the following specifications:

1. Weed seed may not exceed $0.5 \%$ by weight.
2. All seed species must have a minimum $90 \%$ germination rate, unless otherwise specified.
3. Seed must be certified.
4. Seed must be furnished in standard containers showing the following information:
a. Common name of seed
b. Net weight
c. Percent of purity
d. Percentage of germination
e. Percentage of weed seed and inert material
5. Seed must conform to the following mixture.

| Kind and Variety of Seed in Mixture |  |
| :---: | :---: |
|  | \% by Weight |
| Elfeeping Red Fescue | 50 |
| Highland Colonial Bentgrass | 25 |
| White Clover | 15 |
| Inert and Other Crop | 10 |

## 8-27 FERTILIZER

Purchaser shall evenly spread the fertilizer listed below on all exposed soil inside the grubbing limits at a rate of 200 pounds per acre of exposed soil. Fertilizer must meet the following specifications:

| Chemical Component | \% by Weight |
| :---: | :---: |
| Nitrogen | 16 |
| Phosphorous | 16 |
| Potassium | 16 |
| Sulphur | 3 |
| Inerts | 49 |

SECTION 9 - POST-HAUL ROAD WORK

## 9-3 CULVERT MATERIAL REMOVED FROM STATE LAND

Culverts removed from roads become the property of the Purchaser and must be removed from state land.

## 9-5 POST-HAUL MAINTENANCE

Purchaser shall perform post-haul maintenance in accordance with the FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS and as specified below.

## 9-10 LANDING DRAINAGE

Purchaser shall provide for drainage of the landing surface.

## 9-11 LANDING EMBANKMENT

Purchaser shall slope landing embankments to the original construction specifications.

## 9-21 ROAD ABANDONMENT

Purchaser shall abandon the following roads before the termination of this contract.

| Road | Stations |
| :---: | :---: |
| CN-32 | $0+00$ to $2+64$ |
| CN-4702-02 | $0+00$ to $5+70$ |
| CN-54 | $5+03$ to $36+32$ |
| CN-5403 | $0+00$ to $14+70$ |
| LK-24 | $0+00$ to $12+97$ |

## 9-22 ABANDONMENT

- Remove all ditch relief culverts. The resulting slopes must be 1:1 or flatter. Place and compact the removed fill material in a location that will not erode into any Type 1 through 5 waters or wetlands.
- Remove all culverts in natural drainages. The resulting slopes must be 1.5:1 or flatter. Strive to match the existing native stream bank gradient. The natural streambed width must be re-established. Place and compact the removed fill material in a location that will not erode into any Type 1 through 5 waters or wetlands.
- Transport all removed culverts off site. All removed culverts are the property of the Purchaser.
- Construct non-drivable waterbars at natural drainage points and at a spacing that will produce a vertical drop of no more than 20 feet between waterbars and with a maximum horizontal spacing of 400 feet.
- Skew waterbars at least 30 degrees from perpendicular to the road centerline on roads in excess of 3 percent grade.
- Key waterbars into the cut-slope to intercept the ditch. Waterbars must be outsloped to provide positive drainage. Outlets must be on stable locations.
- Inslope or outslope the road as appropriate.
- Remove bridges and other structures.
- Pull back unstable fill that has potential of failing and entering any Type 1 through 5 waters or wetlands. Place and compact removed material in a stable location.
- Remove berms except as designed.
- Block the road by constructing an aggressive barrier of dense interlocked large woody debris (logs, stumps, root wads, etc.) so that four wheel highway vehicles cannot pass the point of abandonment. Typical barrier dimensions are 10 feet high by 20 feet deep, spanning the entire road prism from top of cutslope to toe of fillslope. Long term effectiveness is the primary objective. If necessary construct a vehicular turn-around near the point of abandonment.
- Apply grass seed to all exposed soils resulting from the abandonment work and in accordance with Section 8 EROSION CONTROL.


## SECTION 10 MATERIALS

## 10-15 CORRUGATED STEEL CULVERT

Metallic coated steel culverts must meet AASHTO M-36 (ASTM A-760) specifications. Culverts must be galvanized (zinc coated meeting AASHTO M-218).

## 10-17 CORRUGATED PLASTIC CULVERT

Polyethylene culverts must meet AASHTO M-294 specifications, or ASTM F-2648 specifications for recycled polyethylene. Culverts must be Type S - double walled with a corrugated exterior and smooth interior.

## 10-21 METAL BAND

Metal coupling and end bands must meet the AASHTO specification designated for the culvert and must have matching corrugations. Culverts 24 inches and smaller must have bands with a minimum width of 12 inches. Culverts over 24 inches must have bands with a minimum width of 24 inches.

## 10-22 PLASTIC BAND

Plastic coupling and end bands must meet the AASHTO specification designated for the culvert. Only fittings supplied or recommended by the culvert manufacturer may be used.

## 10-24 GAUGE AND CORRUGATION

Metal culverts must conform to the following specifications for gage and corrugation as a function of diameter.

| Diameter | Gage | Corrugation |
| :---: | :---: | :---: |
| 18" | 16 (0.064") | $2^{2} / 3^{\prime \prime} \times 1 / 2^{\prime \prime}$ |
| 24" to 48" | 14 (0.079") | $2^{2} / 3^{\prime \prime} \mathrm{X}^{1 / 2} 2^{\prime \prime}$ |
| 54" to 96" | 14 (0.079") | 3" $\times 1$ " |

SECTION 11 SPECIAL NOTES

## 11-1 ABANDONED ROAD BLOCKAGE

On the following road, Purchaser shall block access to abandoned road grades concurrent with construction activities. Purchaser shall block the road by constructing an aggressive barrier of dense interlocked large woody debris (logs, stumps, root wads, etc.) so that four wheel highway vehicles cannot pass the point of abandonment. Typical barrier dimensions are 10 feet high by 20 feet deep, spanning the entire road prism from top of cutslope to toe of fillslope. Long term effectiveness is the primary objective. If necessary construct a vehicular turn-around near the point of abandonment.

| Road | Stations |
| :---: | :---: |
| LK-ML | $90+45$ |


| ROAD \# |  | CN-ML | CN-32 | CN-47 | CN-4702 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| REQUIRED / OPTIONAL |  | REQUIRED | OPTIONAL | REQUIRED | REQUIRED |
| CONSTRUCT / RECONSTRUCT |  | PREHAUL | CONSTRUCTION | PREHAUL | RECONSTRUCT |
| tolerance CLASS (A/B/C) |  | C | C | C | C |
| STATION / MP TO STATION / MP |  | 266+34 | 0+00 | 0+00 | 0+00 |
|  |  | 268+11 | 2+64 | 6+95 | 6+53 |
| ROAD WIDTH | R | 12 | 12 | 12 | 12 |
| CROWN (INCHES @ C/L) |  | 3 | 3 | 3 | 3 |
| DITCH WIDTH DITCH DEPTH | w | 3 | 3 | 3 | 3 |
|  | D | 1 | 1 | 1 | 1 |
| TURNOUT LENGTH TURNOUT WIDTH TURNOUT TAPER | L | -- | -- | -- | -- |
|  | T | -- | -- | -- | -- |
|  | P | -- | -- | -- | -- |
| GRUBBING | G1 | -- | 5 | -- | 5 |
|  | G2 | -- | 5 | -- | 5 |
| CLEARING | C1 | -- | 10 | -- | 10 |
|  | C2 | -- | 10 | -- | 10 |
| ROCK FILLSLOPE | K:1 | $11 / 2: 1$ | $11 / 2: 1$ | 11/2: 1 | $11 / 2: 1$ |
| * BALLAST DEPTHCUBIC YARDS $/$ STATION$>$$>$ TOTAL CY BALLAST |  | -- | 18 | -- | 18 |
|  |  | -- | 114 | -- | 114 |
|  |  | -- | 300 | -- | 745 |
| * SURFACING DEPTH CUBIC YARDS / STATION TOTAL CY SURFACING | B2 | 3 | -- | 3 | -- |
|  |  | 17 | -- | 17 | -- |
|  |  | 30 | -- | 120 | -- |
| > TOTAL CUBIC YARDS |  | $30^{\text {A }}$ | $300^{\text {B }}$ | $120^{\text {A }}$ | $745^{\text {B }}$ |
| SUBGRADE WIDTH | s | 12.5 | 16.5 | 12.5 | 16.5 |
| BRUSHCUT (Y/N) |  | N | N | N | N |
| BLADE, SHAPE, \& DITCH (Y/N) |  | N | N | Y | N |

TYPICAL SECTION


TURNOUT DETAIL (PLAN VIEW)


## SYMBOL NOTES

* Specified Rock Depth is FINISHED COMPACTED DEPTH in inches.
> Specified Rock Quantity is LOOSE MEASURE (Truck Cubic Yards) needed to accomplish specified FINISHED COMPACTED DEPTH. Rock quantities include volume for turnouts, curve widening and landings.

Rock Totals Summary

| Type | Quantity (Cubic Yards) |
| :--- | :--- |
| A: 2-Inch Minus | 1,885 |
| B: Ballast | 13,800 |
| Rip Rap | 438 |
| Stream Sim Rock | 20 |


| ROAD \# |  | CN-4702 | CN-4702-02 | CN-54 | CN-54 | CN-5403 | LK-ML | LK-ML |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| REQUIRED / OPTIONAL |  | REQUIRED | REQUIRED | REQUIRED | OPTIONAL | OPTIONAL | REQUIRED | REQUIRED |
| CONSTRUCT / RECONSTRUCT |  | CONSTRUCT | CONSTRUCT | RECONSTRUCT | RECONSTRUCT | CONSTRUCT | PREHAUL | RECONSTRUCT |
| TOLERANCE CLASS (A/B/C) |  | C | C | C | C | C | C | C |
| STATION / MP TO STATION / MP |  | 6+53 | 0+00 | 0+00 | 16+78 | 0+00 | 0+00 | 83+36 |
|  |  | $16+88$ | 5+70 | $16+78$ | 36+32 | $14+70$ | 83+36 | 102+57 |
| ROAD WIDTH | R | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| CROWN (INCHES @ C/L) |  | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| DITCH WIDTH DITCH DEPTH | W | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
|  | D | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| TURNOUT LENGTH TURNOUT WIDTH TURNOUT TAPER | L | 25 | -- | 25 | 25 | 25 | -- | -- |
|  | T | 10 | -- | 10 | 10 | 10 | -- | -- |
|  | P | 25 | -- | 25 | 25 | 25 | -- | -- |
| GRUBBING | G1 | 5 | 5 | 5 | 5 | 5 | -- | 5 |
|  | G2 | 5 | 5 | 5 | 5 | 5 | -- | 5 |
| CLEARING | C1 | 10 | 10 | 10 | 10 | 10 | -- | 10 |
|  | C2 | 10 | 10 | 10 | 10 | 10 | -- | 10 |
| ROCK FILLSLOPE | K:1 | $11 / 2: 1$ | $11 / 2: 1$ | $11 / 2: 1$ | $11 / 2: 1$ | $11 / 2: 1$ | $11 / 2: 1$ | $11 / 2: 1$ |
|  |  | 18 | 18 | 18 | 12 | 18 | -- | 12 |
|  |  | 114 | 114 | 114 | 72 | 114 | -- | 72 |
|  |  | 1,180 | 650 | 1,915 | 1,405 | 1,675 | -- | 1,385 |
| * SURFACING DEPTH | B2 | -- | -- | -- | -- | -- | 3 | -- |
| CUBIC YARDS / STATION |  | -- | -- | -- | -- | -- | 17 | -- |
| $>$ TOTAL CY SURFACING |  | -- | -- | -- | -- | -- | 1,415 | -- |
| $>$ TOTAL CUBIC YARDS |  | $1,180^{\text {B }}$ | $650^{\text {B }}$ | 1,915 ${ }^{\text {B }}$ | 1,405 ${ }^{\text {B }}$ | 1,675 ${ }^{\text {B }}$ | 1,415 ${ }^{\text {A }}$ | 1,385 |
| SUBGRADE WIDTH | S | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 12.5 | 16.5 |
| BRUSHCUT (Y/N) |  | N | N | N | N | N | N | N |
| BLADE, SHAPE, \& DITCH (Y/N) |  | N | N | N | N | N | Y | N |


| ROAD \# |  | LK-ML | LK-ML | LK-24 | LK-27 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| REQUIRED / OPTIONAL |  | REQUIRED | REQUIRED | OPTIONAL | REQUIRED |  |  |
| CONSTRUCT / RECONSTRUCT |  | CONSTRUCT | PREHAUL | CONSTRUCT | CONSTRUCT |  |  |
| TOLERANCE CLASS (A/B/C) |  | C | C | C | C |  |  |
| STATION / MP TO STATION / MP |  | 102+57 | 124+65 | 0+00 | 0+00 |  |  |
|  |  | 124+65 | $143+38$ | 12+97 | 4+83 |  |  |
| ROAD WIDTH | R | 12 | 12 | 12 | 12 |  |  |
| CROWN (INCHES @ C/L) |  | 3 | 3 | 3 | 3 |  |  |
| DITCH WIDTH DITCH DEPTH | W | 3 | 3 | 3 | 3 |  |  |
|  | D | 1 | 1 | 1 | 1 |  |  |
| TURNOUT LENGTH TURNOUT WIDTH TURNOUT TAPER | L | 25 | -- | 25 | -- |  |  |
|  | T | 10 | -- | 10 | -- |  |  |
|  | P | 25 | -- | 25 | -- |  |  |
| GRUBBING | G1 | 5 | -- | 5 | 5 |  |  |
|  | G2 | 5 | -- | 5 | 5 |  |  |
| CLEARING | C1 | 10 | -- | 10 | 10 |  |  |
|  | C2 | 10 | -- | 10 | 10 |  |  |
| ROCK FILLSLOPE | K:1 | $11 / 2: 1$ | $11 / 2: 1$ | $11 / 2: 1$ | $11 / 2: 1$ |  |  |
| $\star \quad$ BALLAST DEPTH B1 <br> CUBIC YARDS $/$ STATION  <br> $>\quad$ TOTAL CY BALLAST  |  | 18 | -- | 18 | 18 |  |  |
|  |  | 114 | -- | 114 | 114 |  |  |
|  |  | 2,515 | -- | 1,480 | 550 |  |  |
| * SURFACING DEPTH | B2 | -- | 3 | -- | -- |  |  |
| CUBIC YARDS / STATION <br> TOTAL CY SURFACING |  | -- | 17 | -- | -- |  |  |
|  |  | -- | 320 | -- | -- |  |  |
| > TOTAL CUBIC YARDS |  | $2,515^{\text {B }}$ | $320{ }^{\text {A }}$ | $1,480^{\text {B }}$ | $550{ }^{\text {B }}$ |  |  |
| SUBGRADE WIDTH | S | 16.5 | 12.5 | 16.5 | 16.5 |  |  |
| BRUSHCUT (Y/N) |  | N | N | N | N |  |  |
| BLADE, SHAPE, \& DITCH (Y/N) |  | N | Y | N | N |  |  |

MATERIALS LIST

| LOCATION |  | CULVERT |  |  | DWNSPT |  | RIPRAP |  |  | $\begin{aligned} & \text { 끄 } \\ & \text { ㄷ } \\ & \text { - } \\ & \text { o } \end{aligned}$ |  | REMARKS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ROAD \＃ | STATION | $\begin{aligned} & \frac{0}{8} \\ & \frac{3}{3} \\ & \frac{\pi}{7} \end{aligned}$ |  | סר | $\begin{aligned} & \text { 둘 } \\ & \frac{\mathbf{n}}{\mathbf{1}} \end{aligned}$ | $\begin{aligned} & \text { 子 } \\ & \hline \end{aligned}$ | $\begin{aligned} & \bar{Z} \\ & \underset{\sim}{7} \end{aligned}$ | $\begin{aligned} & \text { 읃 } \\ & \underset{ㄷ ㅡ ㄱ ~}{\text { m }} \end{aligned}$ | $\begin{aligned} & \text { 子 } \\ & \text { 子 } \\ & \text { 1} \end{aligned}$ |  |  | Note：Galvanized metal culverts shall conform to the following specifications for gage and corrugation as a function of the diameter： |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | $\begin{aligned} & \frac{\text { Diameter }}{18^{\prime \prime}} \\ & 24^{\prime \prime}-48^{\prime \prime} \\ & 54^{\prime \prime}-96^{\prime \prime} \end{aligned}$ | $\begin{gathered} \frac{\text { Gage }}{} \\ \hline 16 \\ 14 \\ 14 \end{gathered}$ |  |
| CN－ML | 267＋60 | 77／52 | 34 | GM | －－ | －－ | 2 | 3 | L | NT | C | 66＂EQUIVAENT PIPE ARCH．SEE DESIGN． |  |  |
| CN－ML | 268＋57 | 18 | 30 | XX | －－ | －－ | 2 | 3 | L | NT | C |  |  |  |
| CN－32 | 0＋10 | 18 | 40 | XX | －－ | －－ | 2 | 3 | L | NT | C | DITCHLAY |  |  |
| CN－4702 | $4+25$ | 18 | 40 | XX | －－ | －－ | 2 | 3 | L | NT | C | COLLECT DITCHWATER FROM 3＋75 TO 4＋25 |  |  |
| CN－4702 | $8+24$ | 18 | 40 | XX | －－ | －－ | 2 | 3 | L | NT | C | PUNCH THROUGH BERM．TYPE 5 STREAM． |  |  |
| CN－4702 | 10＋75 | 18 | 40 | XX | －－ | －－ | 2 | 3 | L | NT | C | PUNCH THROUGH BERM． |  |  |
| CN－4702 | 14＋63 | 18 | 30 | XX | －－ | －－ | 2 | 3 | L | NT | C |  |  |  |
| CN－4702 | 15＋57 | 18 | 30 | XX | －－ | －－ | 2 | 3 | L | NT | C |  |  |  |
| CN－4702－02 | 0＋42 | 18 | 30 | XX | －－ | －－ | 2 | 3 | L | NT | C | TYPE 5 STREAM |  |  |
| CN－4702－02 | 3＋10 | 18 | 30 | XX | －－ | －－ | 2 | 3 | L | NT | C |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CN－54 | 3＋05 | 18 | 30 | XX | －－ | －－ | 2 | 3 | L | NT | C |  |  |  |
| CN－54 | 6＋01 | 30 | 30 | XX | －－ | －－ | 3 | 5 | L | NT | C | TYPE 4 STREAM．TEMPORARY FISH CULVERT |  |  |
| CN－54 | 9＋35 | 18 | 30 | XX | －－ | －－ | 2 | 3 | L | NT | C |  |  |  |
| CN－54 | 12＋13 | 18 | 30 | XX | －－ | －－ | 2 | 3 | L | NT | C |  |  |  |
| CN－54 | 14＋18 | 18 | 30 | XX | －－ | －－ | 2 | 3 | L | NT | C |  |  |  |
| CN－54 | 15＋10 | 48 | 60 | GM |  |  | 20 | 30 | L／H | NT | C | TYPE 4 STREAM．TEMPORARY FISH CULVERT |  |  |

GM－Galvanized Metal PS－Polyethylene Pipe Single Wall PD－Polyethylene Pipe Dual Wall AM－Aluminized Metal C－Concrete XX－PD or GM H－Heavy Loose Riprap L－Light Loose Riprap $\quad$ SR－Shot Rock NT－Native（Bank Run）QS－Quarry Spalls

## MATERIALS LIST

| LOCATION |  | CULVERT |  |  | DWNSPT |  | RIPRAP |  |  |  |  | REMARKS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | STATION | $\begin{aligned} & \frac{\square}{8} \\ & \frac{3}{3} \\ & \frac{\pi}{7} \end{aligned}$ | $\begin{aligned} & \text { 줄 } \\ & \underset{\text { a }}{\text { a }} \end{aligned}$ | خ خ |  | $\begin{aligned} & -1 \\ & \vdots \\ & \hline \end{aligned}$ | $\begin{aligned} & \underline{Z} \\ & \underset{\sim}{\boldsymbol{m}} \end{aligned}$ |  |  |  |  | Note: Galvanized metal culverts shall conform to the following specifications for gage and corrugation as a function of the diameter: |  |  |
| ROAD \# |  |  |  |  |  |  |  |  |  |  |  | $\begin{aligned} & \frac{\text { Diameter }}{18^{\prime \prime}} \\ & 24^{\prime \prime}-48^{\prime \prime} \\ & 54^{\prime \prime}-96^{\prime \prime} \end{aligned}$ | $\begin{gathered} \text { Gage } \\ \hline 16 \\ 14 \\ 14 \end{gathered}$ | $\begin{aligned} & \frac{\text { Corrugation }}{2} 2 / 3^{2 "} \times 1 / 2^{\prime \prime} \\ & 2^{2} / 3^{\prime \prime} \times 1 / 2^{\prime \prime} \\ & 3^{\prime \prime} \times 1^{\prime \prime} \end{aligned}$ |
| CN-54 | 16+36 | 18 | 30 | XX | -- | -- | 2 | 3 | L | NT | C |  |  |  |
| CN-54 | 19+12 | 18 | 30 | XX | -- | -- | 2 | 3 | L | NT | C |  |  |  |
| CN-54 | 21+90 | 18 | 30 | XX | -- | -- | 2 | 3 | L | NT | C |  |  |  |
| CN-54 | 25+36 | 18 | 30 | XX | -- | -- | 2 | 3 | L | NT | C |  |  |  |
| CN-54 | 29+04 | 18 | 30 | XX | -- | -- | 2 | 3 | L | NT | C |  |  |  |
| CN-54 | 30+51 | 18 | 30 | XX | -- | -- | 2 | 3 | L | NT | C |  |  |  |
| CN-54 | $31+63$ | 18 | 30 | XX | -- | -- | 2 | 3 | L | NT | C |  |  |  |
| CN-54 | 33+36 | 18 | 30 | XX | -- | -- | 2 | 3 | L | NT | C |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CN-5403 | 2+71 | 18 | 30 | XX | -- | -- | 2 | 3 | L | NT | C |  |  |  |
| CN-5403 | 4+79 | 18 | 30 | XX | -- | -- | 2 | 3 | L | NT | C |  |  |  |
| CN-5403 | 5+46 | 24 | 30 | XX | -- | -- | 2 | 3 | L | NT | C | TYPE 5 STREAM |  |  |
| CN-5403 | 7+43 | 18 | 30 | XX | -- | -- | 2 | 3 | L | NT | C |  |  |  |
| CN-5403 | 8+06 | 24 | 30 | XX | -- | -- | 2 | 3 | L | NT | C | TYPE 5 STREAM |  |  |
| CN-5403 | 9+17 | 18 | 30 | XX | -- | -- | 2 | 3 | L | NT | C | TYPE 5 STREAM |  |  |
| CN-5403 | 11+13 | 18 | 30 | XX | -- | -- | 2 | 3 | L | NT | C |  |  |  |
| CN-5403 | 12+00 | 18 | 30 | XX | -- | -- | 2 | 3 | L | NT | C | TYPE 5 STREAM |  |  |
| CN-5403 | 12+86 | 18 | 30 | XX | -- | -- | 2 | 3 | L | NT | C |  |  |  |
| CN-5403 | 13+28 | 24 | 30 | XX | -- | -- | 2 | 3 | L | NT | C | TYPE 5 STREAM |  |  |

GM - Galvanized Metal PS - Polyethylene Pipe Single Wall PD - Polyethylene Pipe Dual Wall AM - Aluminized Metal C - Concrete XX - PD or GM H - Heavy Loose Riprap L - Light Loose Riprap

SR - Shot Rock
NT - Native (Bank Run) QS - Quarry Spalls

MATERIALS LIST

| LOCATION |  | CULVERT |  |  | DWNSPT |  | RIPRAP |  |  | $\begin{aligned} & \text { 끄 } \\ & \text { F } \\ & \text {-1 } \\ & 0 \\ & \hline \end{aligned}$ |  | REMARKS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ROAD \＃ | STATION | $\begin{aligned} & \frac{0}{8} \\ & \frac{1}{3} \\ & \frac{\pi}{7} \end{aligned}$ | $\begin{aligned} & \text { 둔 } \\ & \text { 궆 } \end{aligned}$ | 市 |  | $\begin{aligned} & \text { 子 } \\ & \text { 子 } \\ & \hline \end{aligned}$ | $\begin{aligned} & \bar{Z} \\ & \underset{\sim}{n} \end{aligned}$ | $\begin{aligned} & \text { 읃 } \\ & \underset{ㄷ ㅡ ㄱ ~}{\text { m }} \end{aligned}$ |  |  |  | Note：Galvanized metal culverts shall conform to the following specifications for gage and corrugation as a function of the diameter： |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | $\begin{aligned} & \frac{\text { Diameter }}{18^{\prime \prime}} \\ & 24^{\prime \prime}-48^{\prime \prime} \\ & 54^{\prime \prime}-96^{\prime \prime} \end{aligned}$ | $\begin{gathered} \frac{\text { Gage }}{} \\ \hline 16 \\ 14 \\ 14 \end{gathered}$ | $\begin{aligned} & \frac{\text { Corrugation }}{2} 2 / 3^{\prime \prime} \times 1 / 2^{\prime \prime} \\ & 2^{2 / 3 " ~} 3^{11} / 2^{\prime \prime} \\ & 3^{\prime \prime} \times 1^{\prime \prime} \end{aligned}$ |
| LK－ML | 83＋77 | 18 | 30 | XX | －－ | －－ | 2 | 3 | L | NT | C | TYPE 5 STREAM |  |  |
| LK－ML | 85＋98 | 18 | 30 | XX | －－ | －－ | 2 | 3 | L | NT | C | TYPE 5 STREAM |  |  |
| LK－ML | 87＋49 | 18 | 30 | XX | －－ | －－ | 2 | 3 | L | NT | C | TYPE 5 STREAM |  |  |
| LK－ML | 90＋41 | 18 | 40 | XX | －－ | －－ | 2 | 3 | L | NT | C | DRAIN TO EAST，DO NOT RUN WATER DOWN OLD GRADE |  |  |
| LK－ML | 90＋45 | －－ | －－ | －－ | －－ | －－ | －－ | －－ | －－ | －－ | －－ | CONSTRUCT BLOCKAGE，SEE 11－1 |  |  |
| LK－ML | 92＋81 | 18 | 30 | XX | －－ | －－ | 2 | 3 | L | NT | C |  |  |  |
| LK－ML | 97＋97 | 18 | 30 | XX | －－ | －－ | 2 | 3 | L | NT | C |  |  |  |
| LK－ML | 98＋97 | 18 | 30 | XX | －－ | －－ | 2 | 3 | L | NT | C | TYPE 5 STREAM |  |  |
| LK－ML | 102＋73 | 18 | 30 | XX | －－ | －－ | 2 | 3 | L | NT | C | TYPE 5 STREAM |  |  |
| LK－ML | 103＋24 | 18 | 30 | XX | －－ | －－ | 2 | 3 | L | NT | C |  |  |  |
| LK－ML | 104＋48 | 18 | 30 | XX | －－ | －－ | 2 | 3 | L | NT | C |  |  |  |
| LK－ML | 104＋99 | 18 | 30 | XX | －－ | －－ | 2 | 3 | L | NT | C | TYPE 5 STREAM |  |  |
| LK－ML | 105＋54 | 18 | 30 | XX | －－ | －－ | 2 | 3 | L | NT | C | TYPE 5 STREAM |  |  |
| LK－ML | 106＋89 | 18 | 30 | XX | －－ | －－ | 2 | 3 | L | NT | C |  |  |  |
| LK－ML | 107＋22 | 24 | 30 | XX | －－ | －－ | 2 | 3 | L | NT | C | TYPE 5 STREAM |  |  |
| LK－ML | 108＋22 | 18 | 30 | XX | －－ | －－ | 2 | 3 | L | NT | C |  |  |  |
| LK－ML | 108＋83 | 24 | 30 | XX | －－ | －－ | 2 | 3 | L | NT | C | TYPE 5 STREAM |  |  |
| LK－ML | 109＋22 | 18 | 30 | XX | －－ | －－ | 2 | 3 | L | NT | C |  |  |  |
| LK－ML | 110＋35 | 18 | 30 | XX | －－ | －－ | 2 | 3 | L | NT | C |  |  |  |
| LK－ML | 111＋68 | 18 | 30 | XX | －－ | －－ | 2 | 3 | L | NT | C |  |  |  |
| LK－ML | 112＋92 | 30 | 30 | XX | －－ | －－ | 2 | 3 | L | NT | C | TYPE 4 STREAM |  |  |
| LK－ML | 113＋42 | 18 | 30 | XX | －－ | －－ | 2 | 3 | L | NT | C |  |  |  |

GM－Galvanized Metal PS－Polyethylene Pipe Single Wall PD－Polyethylene Pipe Dual Wall AM－Aluminized Metal C－Concrete XX－PD or GM
H - Heavy Loose Riprap L - Light Loose Riprap

SR－Shot Rock
NT－Native（Bank Run）QS－Quarry Spalls
Sarus Timber Sale
Page 33 of 43
Contract No．30－104686

MATERIALS LIST

| LOCATION |  | CULVERT |  |  | DWNSPT |  | RIPRAP |  |  | $\begin{aligned} & \text { 끌 } \\ & \underset{\sim}{7} \\ & \underset{\sim}{7} \end{aligned}$ | -10$m$0220 | REMARKS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\frac{D}{D}$ | Fin | - | $\dot{m}$ | - | $\overline{7}$ | $\bigcirc$ | - |  |  | Note: Galva following sp | al culv s for g of the | conform to the rrugation as a |
| ROAD \# | STATION | $\begin{aligned} & 3 \\ & \pi \\ & \pi \\ & 7 \\ & \hline 1 \end{aligned}$ | $\begin{aligned} & 2 \\ & \mathbf{1} \\ & \mathbf{1} \end{aligned}$ | or | $\begin{aligned} & \boldsymbol{Q} \\ & \underset{\sim}{1} \end{aligned}$ | or | $\underset{\sim}{m}$ |  | $\underset{\square}{\square}$ |  |  | $\begin{aligned} & \frac{\text { Diameter }}{18^{\prime \prime}} \\ & 24^{\prime \prime}-48^{\prime \prime} \\ & 54^{\prime \prime}-96^{\prime \prime} \end{aligned}$ | $\begin{gathered} \frac{\text { Gage }}{16} \\ 14 \\ 14 \end{gathered}$ | Corrugation $\begin{gathered} 2^{2 / 3 "} 3^{\prime \prime} 1^{\prime \prime \prime} \\ 2^{2} / 3^{\prime \prime} \times 1 / 2^{\prime \prime} \\ 3^{\prime \prime} \times 1 \text { " } \end{gathered}$ |
| LK-ML | 113+91 | 18 | 30 | XX | -- | -- | 2 | 3 | L | NT | C | TYPE 5 STREAM |  |  |
| LK-ML | 115+64 | 30 | 30 | XX | -- | -- | 2 | 3 | L | NT | C | TYPE 5 STREAM |  |  |
| LK-ML | 117+48 | 18 | 30 | XX | -- | -- | 2 | 3 | L | NT | C |  |  |  |
| LK-ML | 117+87 | 30 | 30 | XX | -- | -- | 2 | 3 | L | NT | C | TYPE 5 STREAM |  |  |
| LK-ML | 119+52 | 18 | 30 | XX | -- | -- | 2 | 3 | L | NT | C |  |  |  |
| LK-ML | 120+32 | 24 | 30 | XX | -- | -- | 2 | 3 | L | NT | C | TYPE 5 STREAM |  |  |
| LK-ML | $121+34$ | 24 | 30 | XX | -- | -- | 2 | 3 | L | NT | C | TYPE 5 STREAM |  |  |
| LK-ML | 122+81 | 18 | 30 | XX | -- | -- | 2 | 3 | L | NT | C |  |  |  |
| LK-ML | 124+33 | 18 | 30 | XX | -- | -- | 2 | 3 | L | NT | C | TYPE 5 STREAM |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| LK-24 | 1+94 | 24 | 30 | XX | -- | -- | 2 | 3 | L | NT | C | TYPE 5 STREAM |  |  |
| LK-24 | 4+06 | 18 | 30 | XX | -- | -- | 2 | 3 | L | NT | C |  |  |  |
| LK-24 | 4+65 | 18 | 30 | XX | -- | -- | 2 | 3 | L | NT | C |  |  |  |
| LK-24 | 4+97 | 24 | 30 | XX | -- | -- | 2 | 3 | L | NT | C | TYPE 5 STREAM |  |  |
| LK-24 | $5+70$ | 24 | 30 | XX | -- | -- | 2 | 3 | L | NT | C | TYPE 5 STREAM |  |  |
| LK-24 | 6+53 | 18 | 30 | XX | -- | -- | 2 | 3 | L | NT | C |  |  |  |
| LK-24 | 6+96 | 24 | 30 | XX | -- | -- | 2 | 3 | L | NT | C | TYPE 5 STREAM |  |  |
| LK-24 | 9+05 | 18 | 30 | XX | -- | -- | 2 | 3 | L | NT | C |  |  |  |
| LK-24 | 9+38 | 18 | 30 | XX | -- | -- | 2 | 3 | L | NT | C | TYPE 5 STREAM |  |  |
| LK-24 | 11+48 | 18 | 30 | XX | -- | -- | 2 | 3 | L | NT | C |  |  |  |
| LK-24 | 12+22 | 24 | 30 | XX | -- | -- | 2 | 3 | L | NT | C | TYPE 5 STREAM |  |  |

GM - Galvanized Metal PS - Polyethylene Pipe Single Wall PD - Polyethylene Pipe Dual Wall AM - Aluminized Metal C - Concrete XX - PD or GM H - Heavy Loose Riprap L - Light Loose Riprap SR - Shot Rock NT - Native (Bank Run) QS - Quarry Spalls

Sarus Timber Sale
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Contract No. 30-104686

MATERIALS LIST


## FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS

## Cuts and Fills

- Maintain slope lines to a stable gradient compatible with the construction materials. Remove slides from ditches and the roadway. Repair fill-failures, in accordance with Clause 4-6 EMBANKMENT SLOPE RATIO, with selected material or material approved by the Contract Administrator. Remove overhanging material from the top of cut slopes.
- Waste material from slides or other sources shall be placed and compacted in stable locations identified in the road plan or approved by the Contract Administrator, so that sediment will not deliver to any streams or wetlands.
- Slide material and debris shall not be mixed into the road surface materials, unless approved by the Contract Administrator.


## Surface

- Grade and shape the road surface, turnouts, and shoulders to the original shape on the TYPICAL SECTION SHEET. Inslope or outslope as directed to provide a smooth, rut-free traveled surface and maintain surface water runoff in an even, unconcentrated manner.
- Blading shall not undercut the backslope or cut into geotextile fabric on the road.
- If required by the Contract Administrator, water shall be applied as necessary to control dust and retain fine surface rock.
- Surface material shall not be bladed off the roadway. Replace surface material when lost or worn away, or as directed by the Contract Administrator.
- Remove shoulder berms, created by grading, to facilitate drainage, except as marked or directed by the Contract Administrator.
- For roads with geotextile fabric: spread surface aggregate to fill in soft spots and wheel ruts (barrel spread) to prevent damage to the geotextile fabric.


## Drainage

- Prevent silt bearing road surface and ditch runoff from delivering sediment to any streams or wetlands.
- Maintain rolling dips and drivable waterbars as needed to keep them functioning as intended.
- Maintain headwalls to the road shoulder level with material that will resist erosion.
- Maintain energy dissipaters at culvert outlets with non-erodible material or rock.
- Keep ditches, culverts, and other drainage structures clear of obstructions and functioning as intended.
- Inspect and clean culverts at least monthly, with additional inspections during storms and periods of high runoff. This shall be done even during periods of inactivity.


## FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS

## Preventative Maintenance

- Perform preventative maintenance work to safeguard against storm damage, such as blading to ensure correct runoff, ditch and culvert cleaning, and waterbar maintenance.


## Termination of Use or End of Season

- At the conclusion of logging operations, ensure all conditions of these specifications have been met.


## Debris

- Remove fallen timber, limbs, and stumps from the slopes, roadway, ditchlines, and culvert inlets.



## TURNAROUND DETAILS



CUL-DE-SAC


HAMMERHEAD


3-POINT SIDE


3-POINT WYE

TURNAROUND TYPE AND TURNAROUND LOCATION ARE SUBJECT TO THE APPROVAL OF THE CONTRACT ADMINISTRATOR.

ROCK SHALL BE APPLIED THROUGHOUT THE TURNAROUND TO THE SAME DEPTH AND SPECIFICATIONS AS LISTED IN THE TYPICAL SECTION.


## STEEL GATE INSTALLATION <br> LK-ML 87+85



| CONTRACT\# | PROJECT | SHEET |
| :---: | :---: | :---: |
| $30-104686$ | SARUS | 39 OF 43 |

## LK-ML ROSCOE BRIDGE DETAIL

## MATERIALS LIST:



100 LINEAL FEET OF $\frac{3}{8}$ " X 3" FLAT STEEL 10 SQUARE FEET OF $\frac{3}{8}$ " STEEL PLATE FOR PATCHING 12 CUBIC YARDS GRAVEL SURFACING WELDED TO GUARDRAIL RISERS ENTIRE LENGTH OF BRIDGE ON REMOVE WOOD

EXISTING GALVANIZED CORRUGATED DECK

PATCH ALL HOLES WITH 3 3" GALVANIZED STEEL PLATE

ADD 3" OF 2" MINUS GRAVEL MEASURED FROM THE TOP OF CORRUGATED DECK

RAMP UP APPROACHES WITH GRAVEL




## SUMMARY - Road Development Costs

REGION: NW
DISTRICT: Clear Lake


## LOGGING PLAN MAP



## LOGGING PLAN MAP





## LOGGING PLAN MAP



When recorded return to:
Department of Natural Resources
Northwest Region
Attn: Kathi Ray
919 North Township St.
Sedro-Woolley, WA 98284

# STATE OF WASHINGTON DEPARTMENT OF NATURAL RESOURCES <br> PETER GOLDMARK, Commissioner of Public Lands 

Grantor(s): SANFI ACRES, L.L.C.<br>Grantee(s): STATE OF WASHINGTON, DEPARTMENT OF NATURAL RESOURCES<br>Legal Description: N1/2SW1/4 S27-T33N-R5E<br>Assessor's Property Tax Parcel or Account Number: P18282, P121699<br>DNR Easement No. 55-088281

## EASEMENT

THIS AGREEMENT, made and entered into this $\qquad$ day of $\qquad$ , 20 $\qquad$ , by and between SANFI ACRES, L.L.C., herein called "Grantor," and STATE OF WASHINGTON, acting by and through the Department of Natural Resources, herein called "the State," WITNESSETH:

Conveyance. Grantor, for and in consideration of mutual benefits, hereby grants and conveys to the State, its successors and assigns, a perpetual non-exclusive Easement over parcels of land in Skagit County legally described as set forth in Exhibit "A" (hereafter Burdened Parcel) said Easement to be sixty (60) feet in width running thirty (30) feet on each side of a centerline of a road located approximately as shown on Exhibit "B" (hereafter Easement Area).

Purpose. This Easement is conveyed to provide road access upon the Crane Creek Mainline Road as currently established, to and from lands owned by the State described in Exhibit "C", attached hereto to lease/manage the State's property for purposes including, but not limited to, communications sites, apiaries and mineral prospecting. The purpose excludes recreational or commercial leasing that relies primarily upon the public for its business. Authorized use shall include the right to travel, maintain, repair, construct or reconstruct the Easement Area. This Easement purpose is in addition to the State's existing easement rights upon the Crane Creek

Mainline Road and is not intended to amend, negate or supersede any previously recorded easement document.

Appurtenant. This Easement shall be deemed appurtenant to the real property now owned by the State located in Skagit and Snohomish Counties, legally described as set forth in Exhibit "C" attached hereto and such other real property lying immediately adjacent to that described in Exhibit "C" hereafter acquired by the State (hereafter Benefited Parcel(s)).

Reservations. Grantor reserves all ownership of the Easement Area and the right at all times for any purpose, to use the Easement Area at any place on grade or otherwise, including using the road within the easement area, provided Grantor's use does not unreasonably interfere with the rights granted to the State herein. Grantor may grant to third parties any or all of the rights reserved therein; provided, that use by such party shall be subject to the terms and conditions of this Easement and shall not unreasonably interfere with the rights granted to the State herein. Grantor reserves all timber now on or hereafter growing within the rights of way on said lands and the right to remove said timber via the right of way herein granted.

Maintenance. The cost of road maintenance and resurfacing shall be allocated on the basis of respective uses of said roads. When any party uses a road, that party shall perform or cause to be performed, or contribute or cause to be contributed, that share of maintenance and resurfacing occasioned by such use as hereinafter provided. During periods when a road is being used solely by one party, such party shall maintain that portion of said road so used to the standards existing at the time use is commenced. During periods when more than one party is using the same road, or any portion thereof, the parties hereto shall meet and establish necessary maintenance provisions. Such provisions shall include, but shall not be limited to:
a. The appointment of a maintainer, which may be one of the parties hereto or any third party, who will perform or cause to be performed at a reasonable and agreed upon rate the maintenance and resurfacing of the road or the portion thereof being used; and
b. A method of payment by which each party using said road or a portion thereof, shall pay its pro rata share of the cost incurred by said maintainer in maintaining or resurfacing said road or portion thereof.

For purposes of this agreement, maintenance is defined as the work normally necessary to preserve and keep the roadway, road structure and road facilities as nearly as possible in their present condition or as hereafter improved.

The State shall be solely responsible for the repair and maintenance of any gate on the Easement Area and shall provide to Grantor a key or other means or access.

Repairs. Each party using any portion of a road shall repair, or cause to be repaired, at its sole cost and expense, that damage to said road occasioned by it which is in excess of that which it would cause through normal and prudent usage. Should damage be caused by an unauthorized user, the cost of repair shall be treated as ordinary maintenance and handled as set forth above.

Permittees. The State may permit its respective agents, contractors, licensees, lessees, purchasers of timber or other valuable materials, and their agents, hereinafter individually referred to as "Permittee" and collectively referred to as "Permittees," to exercise the rights granted to it herein, provided that such use shall be subject to the terms and conditions of this Easement. Acts or omissions of the Permittee(s) operating under this Easement shall be deemed an act of the State.

Insurance. The State of Washington, including all its agencies and departments, is self insured for all exposures to tort liability, general liability, property damage liability and vehicle liability, as provided in statute, but only as respects the negligence of the State:

Indemnity. State shall defend, indemnify and hold harmless the Grantor, hereinafter to include Grantor's members, employees, officers, agents, contractors and subcontractors, from all claims that arise out of the negligence of the State or its Permittee in their use of the easement. A "claim" as used in this section means any financial loss, claim, suit, action, damage, or expense, including but not limited to attorneys' fees, attributable to bodily injury, sickness, disease or death, or injury to or destruction of tangible property including the resulting loss of use. Notwithstanding the foregoing, State's obligation to defend, indemnify, and hold harmless the Grantor from any judgment, decree or arbitration award shall extend only to the percentage of negligence of State and its Permittee in contribution to such claim. State waives its immunity under Title 51 RCW only to the extent it is required to indemnify, defend and hold harmless Grantor. This indemnification shall survive the expiration or termination of the easement.

Waste. The State shall not cause or permit any filling activity to occur in or on the Easement Area, except as approved by Grantor. State shall not deposit refuse, garbage, or other waste matter or use, store, generate, process, transport, handle, release, or dispose of any hazardous substance, or other pollutants in or on the Easement Area except in accordance with all applicable laws.

The term hazardous substance means any substance or material as those terms are now or are hereafter defined or regulated under any federal, state, or local law including but not limited to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA 42 USC 9601 et seq.), or the Washington Model Toxic Control Act (MTCA RCW 70.105D.010).

The State shall immediately notify Grantor if the State becomes aware of any release or threatened release of hazardous substance on the Easement Area or adjoining property. If a release of hazardous substance occurs in, on, under, or above the Easement Area arising out of
any action of the State, its contractors, subcontractors, invitees, agents, employees, licensees, or other Permittees, the State shall, at the State's sole expense, promptly take all actions necessary or advisable to clean up, contain, and remove the hazardous substance in accordance with applicable laws.

Any cleanup shall be performed in a manner approved in advance in writing by Grantor, except in emergency situations the State may take reasonable and appropriate actions without advance approval.

Improvements. The State shall construct no improvements without the prior written consent of Grantor, which shall be at Grantor's sole discretion. Unless the parties agree in writing to share the cost of improvements, improvements shall be at the sole expense of the improver. Any improvements to the Easement Area shall become the property of Grantor unless the applicable consent specifically provides otherwise.

Notice. Any notices or submittals required or permitted under this Easement may be delivered personally, sent by facsimile machine or mailed first class, return receipt requested, to the following addresses or such other place as the parties hereafter direct. Notice will be deemed given upon delivery, confirmation of facsimile, or three days after being mailed, whichever is applicable.

To State:

## DEPARTMENT OF NATURAL RESOURCES <br> Northwest Region <br> 919 North Township St. <br> Sedro-Woolley, WA 98284 <br> To Grantor: <br> SANFI ACRES, L.L.C. <br> Attn: Kevin B. McGoffin, Esq. <br> 103 North Township St. <br> Sedro-Woolley, WA 98284

Recording. The State shall record this Easement in the county in which the Easement Property is located, at the State's sole expense. The State shall provide Grantor with a copy of the recorded Easement. The State shall have thirty (30) days from the date of delivery of the final executed agreement to comply with the requirements of this section. If the State fails to record this Easement, Grantor may record it and the State shall pay the costs of recording, including interest, upon Grantor's demand.

Construction. The terms of this Easement shall be given their ordinary meaning unless defined herein and shall not be presumed construed against the drafter.

Effective Date. The Effective Date of this Easement shall be the date on which the last party executes this Easement. The Effective Date will be inserted on the first page of the Easement when such date is determined.

Exhibits. All exhibits referenced in this Easement are incorporated as part of the Easement.
Headings. The headings in this Easement are for convenience only and are not intended to, and shall not be construed to, limit, enlarge, or affect the scope of intent of this Easement nor the meaning of any of its provisions.

Modification. Any modification of the Easement must be in writing and signed by the parties. Neither party shall be bound by any oral representation or statements.

Severability. If any provision of this Easement shall be held invalid, it shall not affect the validity of any other provision herein.

Successors and Assigns. This Easement shall be binding upon and shall inure to the benefit of the parties, their successors and assigns.

IN WITNESS WHEREOF, the parties hereto have executed this instrument, in duplicate to become effective as of the day and year first above written.

Dated: $\qquad$
SANFI ACRES, L.L.C.


Authorized Member

## Affix Seal of Corporation

Affix Seal of Commissioner of Public Lands

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

Dated: $4 / 2,2013$


Address: 103 North Township St. Sedro-Woolley, WA 98284
(360) 856-2068


Address: $\quad 919$ North Township St.
Sedro-Woolley, WA 98284
(360) 856-3500

Approved as to Form this
7th day of February, 2013.
By: Michael Rollinger
Assistant Attorney General
State of Washington

## REPRESENTATIVE ACKNOWLEDGMENT

State of Washington
County of SKAGIT
I certify that I know or have satisfactory evidence that ROBERT W. JANICKI is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute the instrument and acknowledged it as the Authorized Member of Sanfi Acres, L.L.C. to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

Dated:


MARY DOUGLAS NOTARY PUBLIC
STATE OF WASHINGTON COMMISSION EXPIRES MAY 9, 2015



Notary Public in and for the State of Washington, residing at SKAGIT (OUNTZ, witstinkiow.

My appointment expires 1 DAy 9,2015 .

## STATE ACKNOWLEDGMENT

## State of Washington

## County of Thurston

I certify that I know or have satisfactory evidence that PETER GOLDMARK is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute the instrument and acknowledged it as the Commissioner of Public Lands, and administrator of the Department of Natural Resources of the State of Washington to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

Dated:



Brenda Treadwell
(Print Name)
Notary Public in and for the State of Washington, residing at

 My appointment expires $7725 / 216$

## EXHIBIT A EASEMENT AREA

A strip of land 60 feet in width, lying 30 feet on each side of the following described centerline: Commencing at the West $1 / 4$ corner of Section 27, Township 33 North, Range 5 East, W.M., Skagit County, Washington; Thence southerly along the west line of said Section 27 , a distance of 80 feet, more or less, to the centerline of an existing county road known as Granstrom Road; thence easterly along said road a distance of 850 feet, more or less, to the intersection of Granstrom Road and an existing roadway, and the true point of beginning of this centerline description; thence southeasterly along the centerline of said existing roadway a distance of 2,150 feet, more or less, to the east line of the SW $1 / 4$ of said Section 27, the sidelines of said strip to begin and end at the same boundaries as the centerline.

## EXHIBIT B <br> EASEMENT AREA

T 33 North, R 5 East
SKAGIT COUNTY, WASHINGTON


EXHIBIT C

## BENEFITED PARCELS

## State Land

Skagit County, Washington
$\mathrm{NE}^{1 / 4} \mathrm{SE}^{1 / 4}, \mathrm{~S}^{1} / 2 \mathrm{SE}^{1} / 4, \mathrm{SE}^{1 / 4} \mathrm{NE}^{1} / 4$ located southeast of Pilchuck Creek $23 \quad 33 \mathrm{~N} \quad 5 \mathrm{E}$

All
All located southeast of Pilchuck Creek
$\mathrm{S}^{1} / 2 \mathrm{NE}^{1} / 4 ; \mathrm{SE}^{1} / 4 \mathrm{SW}^{1} / 4 ; \mathrm{SE}^{1} / 4$
All located east of Pilchuck Creek
All except $\mathrm{SE}^{1} / 4 \mathrm{NW}^{1 / 4}, \mathrm{E}^{1} / 2 \mathrm{SW}^{1 / 4}$, and $\mathrm{SW}^{1 / 4} \mathrm{SW}^{1 / 4}$
All
GL4, $\mathrm{SE}^{1} / 4 \mathrm{SW}^{1} 1 / 4, \mathrm{SE}^{1} / 4 \mathrm{SE}^{1} / 4$ located south of Pilchuck Creek
All located south of Pilchuck Creek
$\mathrm{W}^{1} 1 / 2 ; \mathrm{W}^{1} / 2 \mathrm{SE}^{1} / 4 ; \mathrm{SE}^{1} / 4 \mathrm{SE}^{1 / 4}$
S $1 / 2$
All
All
All
All
All
All except $\mathrm{S}^{1} / 2 \mathrm{SE}^{1 / 4}$
$\mathrm{N}^{1} / 2 \mathrm{SW}^{1} / 4 ; \mathrm{N}^{1} 2 \mathrm{SE}^{1} / 4, \mathrm{SE}^{1} / 4 \mathrm{SE}^{1} / 4$
Snohomish County, Washington
GL1; GL2; GL3; GL4; SE1/4NE1/4; N1⁄2SE1/4; NE $1 / 4 \mathrm{SW}^{1} 1 / 4$;
$\mathrm{NW}^{1} / 4 \mathrm{SW}^{1} / 4 \mathrm{SE}^{1} / 4 ; \mathrm{E}^{1} / 2 \mathrm{SW}^{1} / 4 \mathrm{SE}^{1} / 4 ; \mathrm{S}^{1} / 2 \mathrm{SE}^{1} / 4 \mathrm{SE}^{1 / 4} \quad 01 \quad 32 \mathrm{~N} \quad 5 \mathrm{E}$
GL1; GL2; $\mathrm{N}^{1} / 2 \mathrm{SW}^{1} / 4 \mathrm{NW}^{1 / 4}$
GL1; GL2; GL3; SE1/2NE $1 / 4$
N1/2
GL1; GL2; GL3; GL4; S 1 12 $\mathrm{NW}^{1} 1 / 2$; $\mathrm{S}^{1} / 2 \mathrm{NE}^{1} 1 / 2$
All
All
02
03
03
04
$05 \quad 32 \mathrm{~N} \quad 6 \mathrm{E}$
06 32N 6E

## 687992

## EASEMENT

THE GRANTOR, SCOTT PAPER COMPANY, a Pennsylvania corporation, for and In consideration of TEN ( $\$ 10.00$ ) DOLLARS and other valuable consideration to it in hand paid, conveys and quitclaims, subject to the terms and conditions hereinafter set forth, to the GRANTEE, THE STATE OF WASHINGTON, acting by and through the DEPARTMENT OF NATURAL RESOURCES
a permanent non-exclusive right-of-way and easement to construct, use, maintain, repair and reconstruct a road, with necessary bridges, culverts and other appurtenances, over, upon and across a strip of land in the $N^{\frac{1}{2}}$ of the SW of Section 27 , Township 33 North, Range 5 East. W.M., in the County of Skagit and the State of Washington. said strip being sixty (60) feet in width together with such additional width as is required for protection of cuts and fills, being located as indicated on the plat marked Exhibit A attached hereto and made a part hereof, and being more particularly described as follows:

Said strip is thirty (30) feet on each side of those portions of the centerline, described on Exhibit $B$ attached hereto and made a part hereof.

1. Sald road may be used by the Grantee in connection with the growing, protecting, harvesting and removing of timber or other valuable materials presently owned or hereafter acquired by it.
2. The Grantor reserves for itself, its successors and assigns
(a) The right to use said strip, and to cross and recross said road at any place on grade or otherwise, by any means and for any purpose but in such manner as not to interfere
(b) The right to use, maintain, patrol, improve and reconstruct said road or any segment thereof for any purpose in such manner as it may deem necessary or desirable;
(c) The right to install and maintain a gate across said road; provided, however, that such right shall be exercised in a manner which shall not cause unreasonable interference with the use of said road by the Grantee who shall be provided with independent means of ingress and egress through such gate;
(d) The right to prescribe reasonable rules and regulations for the use of said road, or any portion thereof, which rules and regulations shall equally apply to all operators then utilizing said road or portion;
(e) Title to all merchantable timber and other forest products now located on the above described strip of land or which at any time hereafter may grow thereon; provided, however, that whenever in its opinion it becomes necessary for any reason, the Grantee may, in a workmanlike manner and at no cost to Grantor, fall any such timber or other forest products growing or being on said strip, buck the same into marketable lengths, pile it along the used portion of said strip and promptly notify the Grantor of the location thereof; and
$(f)$ The right to grant to one or more third parties, upon such terms as it chooses, any part or all of any right or title herein reserved in subparagraphs (a) through (e) above; provided, however, that any such grant shall be on such terms that its exercise by any such third party shall not interfere unreasonably with the exercise of the rights herein granted.
3. The Grantee may extend to its contractors, 1icensees, purchasers of timber or other valuable materials, and their respective agents the rights granted herein; provided, however, that the Grantee, or any such other person, planning to use said rights for the purpose of hauling timber or other valuable materials, shall
notify the Grantor at least fifteen (15) days prior to commencement of such hauling and shall, if so required by the Grantor, procure, maintain and furnish Grantor with satisfactory evidence of liability insurance in a form generally acceptable in the trade and customary in the area insuring Grantee or such person against liability arising out of its operations on said strip, with limits and with such other terms and conditions as the Grantor may reasonably require.
4. During periods when said road or any portion thereof is being used solely by the Grantee, the Grantor, or any party claiming under either of them, the party using the same shall maintain said road or portion to the standards existing at the time such use commenced. During periods when the Grantee and Grantor, or either of them and any party claiming under either of them, are jointly using the road or any portion thereof, the users shall meet and establish necessary maintenance provisions. Such provisions shall include but not be limited to:
(a) Agreeing upon a maintainer which may be the Grantee, the Grantor, or any other party who will perform or cause to be performed at a reasonable, agreed rate the maintenance of said road or portion;
(b) Agreeing upon a method of payment by which each user shall pay its pro rata share of the cost incurred by the maintainer in maintaining the jointly used road or portion.
All maintenance duties and other obligations resulting from the meeting shall be evidenced in writing.
5. Each party shall repair, or cause to be repaired, at its sole cost and expense, any damage to the road occasioned by it which is in excess of that which the party would cause through normal and prudent usage of said road.

IN WITNESS WHEREOF, the parties hereto have cause this instrument to be executed as of the Sth day of 1966.


SCOTT PAPER COMPANY, GRANTOR


STATE OF WASHINGTON


## STATE OF WASHINGTON )

) $s s$.
COUNTY OE SNOHOMISH )
On this $\frac{1+\pi}{5 t h}$ day Au\&us May , 1966 , before me, a Notary Public in and for the State of Washington, personally appeared Robert E. March and W. Tyler Peabody, Jr, to me known to be the General Manager, West Coast Division and Assistant Secretary, respectively, of SCOTT PAPER COMPANY, the corporation which executed the within and foregoing instrument, and acknowledged the said Instrument to be the free and voluntary act and deed of said corporation for the uses and purposes therein mentioned, and on oath stated that they were authom rized to execute said instrument and that the seal affixed is the corporate seal of said corporation.

WITNESS my hand and official seal hereto affixed the day and year in this certificate first above written.


STATE OF WASHINGTON )
) ss .
COUNTY OF THURSTON )
On this $5 t /$ day of May Auqust, 1966 , before me, a Notary Public in and for the STATE OF WASHINGTON, personally appeared Bert L. Cole, known tc me known to be the Commissioner of Public Lands of the Department of Natural Resources of the State of Washington, which executed the within and foregoing instrument on behalf of said State of Washington, and acknowledged said instrument to be the free and voluntary act and deed of said Department on behalf of sald State of Washington for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument.

WITNESS, hy , hand and official seal hereto affixed the day and year in this certurcaterfise above writcen.


## 358

## EXHIBIT B

Description of the centerline of a road located in Section 27 , Township 33 North, Range 5.East, W.M., Skagit County, Washington

Commencing at a point on the west line of said Section 27 , which is $\mathbb{N} 2^{\circ} \mathrm{E} 70$ feet from the west quarter section corner thereof, running thence East 75 feet, thence $S 82^{\circ} 30^{\circ}$ E 190 feet, thence $N 88^{\circ} 15^{\circ}$ E 200 feet, thence $\mathbb{N} 89^{\circ}$ E 200 feet, thence $\mathbb{N} 86^{\circ} 15^{\circ}$ E 70 feet, and thence $S 64^{\circ}$ E 110 feet to a point on the north line of said $N^{\frac{1}{2}} S W^{\frac{1}{4}}$ and the true point of beginning of this centerline description, running thence $S 52^{\circ}$ E 200 feet, thence $S 60^{\circ} 45^{\circ}$ E 200 feet, thence $S 61^{\circ} 30^{\prime}$ E 142 feet, thance $S 67^{\circ} 30^{\circ}$ E 154 feet, thence $S 73^{\circ} 30^{\circ}$ E 200 feet, thence $S 82^{\circ}$ E 90 feet, thence $N 86^{\circ}$ E 200 feet, thence $\mathbb{N} 89^{\circ} 15^{\circ} \mathrm{E} 200$ feet, thence $N 88^{\circ} 30^{\prime} \mathrm{E} 200$ feet, thence $S 82^{\circ} 30^{\circ}$ E 200 feet, thence $S 76^{\circ} 30^{\prime}$ E 200 feet and thence $S 74^{\circ} 30^{\prime}$ E 234 feet to a point on the north-south centerline of said Section 27 , which is South 3,220 feet from the north quaxter section corner thereof, having an area of 3.06 acres as shown on the plat attached hereto and by this reference made a part hereof, all in Skagit County, Washington.

## EASEMENT

THIS AGREEMENT, made and entered Into this $23 \frac{i d}{}$ day of $\frac{\text { IUne }}{}$, by and between SCOTT PAPER COMPANY, a Pennsylvania corporation, herein 1975 , by and between SCOTT PAPER COMPANY, a Pennsylvanda corporation, herein called "Scott," and STATE OF WASHINGTON, acting by and through the Department of Natural Resources, herein called "State," WITNESSETH:
$I$
Scott, for and in consideration of One and no/100 Dollars ( $\$ 1.00$ ) hereby grants and conveys to the State, its successors and assigns, a permenent easement assignable in whole or in part upon, over, and along rights of way sixty (60) feet in width over and across part $\mathrm{N}_{2} \mathrm{SW}^{\frac{1}{2}}$ of Section 27 , Township 33 North, Range 5 East, W.M., in Skagit County, Washington, being thirty (30) feet on each side of the centerlines of a road or roads located approximately as shown in red on the attached "Exhibit A."

## II

The parties hereto hereby agree that the rights hereinabove granted shall be subject to the following terms and conditions:

1. The easements are conveyed for the purposes of construction, reconstruction, use and maintenance of a road or roads for the purpose or providing public access to State lands for recreational purposes under such rules, regulations, and limitations as may be mutually established by the parties; provided, however, that such public use shall not interfere with historical commercial use of the parties.
2. Scott reserves for itself, its successors and assigns, the right at all times for any purpose, to cross and recross at any place on grade or otherwise, and to use said rights of way in a manner that will not unreasonably interfere with the rights granted to the State herein.
3. Scott may grant to third parties, upon such terms as it chooses, any or all of the rights reserved by it herein; provided, that use by such party shall be subject to the terms and conditions of this agreement and shall not unreasonably interfere with the rights granted to the State herein.
4. The cost of road maintenance and resurfacing shall be allocated on the basis of respective uses of said road. When any party uses a road, such party shall perform or cause to be performed, or contribute or cause to be contributed, that share of maintenance and resurfacing occasioned by such use as hereinafter provided. During periods when a road is being used solely by one party, such party shall maintain that portion of sald road so used to the standards existing at the time use is commenced. On roads upon which the public use is permitted, State will assume maintenance and resurfacing responsiblity for such permitted traffic. Provided, in the event Scott modifies its land use programs so as to establish facilities such as campsites, picnic grounds or other like facilities which invite or encourage public use, then Scott will also assume its proportionate share of the maintenance and resurfacing responsiblity for such use. During periods when more than one party is using the same road, or any portion thereof, the parties hereto shall meet and establish necessary maintenance provisions. Such provisions shall include but shall not be limited to:
(a) the appointment of a maintainer, which may be one of the parties hereto or any third party, who perform or cause to be performed at a reasonable and agreed upon rate the maintenance and resurfacing of the road or the portion thereof being used; and
(b) a method of payment by which each party using said road or a portion thereof, shall pay its pro rata share of the cost incurred by said maintainer in maintaining or resurfacing said road or portion thereof. For purposes of this agreement, maintenance is defined as the work normally necessary to preserve and keep the roadway, road structure and road facilities as nearly as possible in their present condition or as hereafter improved.
5. Each party using any portion of a road shall repair, or cause to be repaired, at its sole cost and expense, that damage to said road occasioned by it which is in excess of that which it would cause through normal and prudent usage of said road. Should Inordinate damage to a road occur which is not caused by an authorized user of said road, the parties hereto shall meet to agree upon the cost of replacement, the party to undertake the replacement, and the shares of replacement cost to be borne by each user of said road. Public use leading to inordinate damage to be repaired at sole cost and expense of State. Provided, in the event Scott modifies its land use program so as to establish facilities such as campsites, picnic grounds or other like facilities which invite or encourage public use, then Scott will also assume its proportionate share of the inordinate damage.
6. Unless the parties hereto agree in writing to share the cost of improvements in advance of such improvements being made, such improvements shall be solely for the account of the improver.
7. Scott reserves to itself all timber now on or hereafter growing within the rights of way on its said lands and the right to remove said timber via the -right of way herein granted.
8. The State may permit its respective agents, contractors, licensees, lessees, and their agents, hereinafter Individually referred to as "Permittee" and collectively referred to as "Permittees," to exercise the rights granted to it herein.
9. It is understood and agreed that the State will save and hold harmless Scott from all claims, costs, damage or expense of any kind arising out of the occupancy or use of these roads by the State, its agents, lessees, employees, and the general public, to the extent that the State may be subject to liability for tortious conduct under Chapter 136, Laws of 1961, as amended by Chapter 159, Laws of 1963.

IN WITNESS WHEREOF, the parties hereto have executed this instrument, in duplicate as of the day and year first above written.

SCOTT PAPER COMPANY


Affix Seal of Corporation
STATE OF WASHINGTON DEPARTMENT OF NATURAL RESOURCES


Affix Seal of Commissioner
of Public Lands
Easement No. 1308
pg
STATE OF Washington ,
County of Sn

the corporation that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and on oath stated that they were authorized to execute said instrument and that the seal affixed is the corporate seal of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above written.


## STATE OF WASHINGTON )

ss
COUNTY OF HURSTON )
On this $25^{\text {tr }}$ day of $\qquad$ , 1975 , before me personally appeared BERT L. COLE, to me known to the Commissioner of Public Lands, and ex officio administrator of the Department of Natural Resources of the State of Washington, the Department that executed the within and foregoing instrument on behalf of the State of Washington, and acknowledged said instrument to be the free and voluntary act and deed of the State of Washington for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument and that the seal affixed is the official seal of the Commissioner of Public Lands for the State of Washington.

IN WITNESS WHEREOF, I have hereunto set my hand and seal the day and year set forth above.



TOWNSHIP... $=$ NORTH, RANGE....


## EXHIBTI 'A'

SCALE: /" $=1000$
Drawn By:
Date: 5-6.75

