

TAYLOR TO SWIFT SAMPLE CONTRACT

STATE OF MONTANA - TIMBER SALE CONTRACT FOR STUMPAGE SOLD BY THE TON

VERSION 18 – JANUARY 2018

DEPARTMENT OF NATURAL RESOURCES & CONSERVATION 2705 Spurgin Road Missoula, MT 59804	NAME, ADDRESS AND PHONE NUMBER OF PURCHASER: _____ _____ _____	
	Tax I.D. Number _____	
LAND OFFICE Northwestern	SALE NAME Taylor to Swift	SALE NUMBER _____
UNIT OFFICE Stillwater	AWARD DATE _____	TERMINATION DATE December 1, 2030

THIS CONTRACT IS MADE AND ENTERED INTO by and between the State of Montana, acting through its Department of Natural Resources & Conservation, Trust Land Management Division (hereinafter called the State) and (, a sole proprietorship; or , a partnership; or , Inc. a corporation) (hereinafter called Purchaser) having an office and principal place of business at the address shown above. Purchaser's bid on the timber described in this contract has been accepted by the State after having been estimated, appraised and advertised for sale as required by law. Therefore, in consideration of the mutual promises contained in this agreement, the State agrees to sell and the Purchaser agrees to purchase the designated timber located on the areas described in this Contract at the specified rates of payment and in strict conformity with the requirements, standards, specifications and conditions set forth in this Contract.

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-ATTACHMENTS-			
The following attachments are hereby made a part of this contract:			
ATTACHMENT A: Timber Sale Maps			7 Pages
ATTACHMENT B: Road Construction, Improvements and Maintenance Specifications			56 Pages
ATTACHMENT C: Forest Fire Regulations			2 Pages
ATTACHMENT D: Working in Bear Habitat Brochure			1 Page
ATTACHMENT E: Montana Streamside Protection Act (124 Application)			18 Pages

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TABLE 1 - LEGAL DESCRIPTION OF THE GROSS SALE AREA			
The timber designated for sale under this Contract is within the following sale area			
Subdivisions	Section	Tw	Rge
SW4	6	32N	22W
SE4	18	32N	22W
E2	19	32N	22W
W2	20	32N	22W
NW4	29	32N	22W
SW4	33	32N	22W
Total approximate acres in gross sale area:		1,280	
Number of harvest units (Including Right-of-Way):		9	
Total acres in harvest units (Including Right-of-Way):		307	

TABLE 1 (continued) - ESTIMATED SALE VOLUME	
The state does not guarantee the product weight, by species or in total, to equal the estimated advertised weight in quantity or product designation.	
Product	Estimated Quantity (Tons)
Sawlogs	15,710
Other Material	Not Estimated
Total Estimated Volume	15,710

TABLE 1 (continued) - PAYMENT RATES			
Payment	Amount		Requirements
Performance Bond Amount:	20% of bid value		See Section II.A.1-3.
	Product	Amount	
Stumpage Rate per ton:	Sawlogs	Bid Rate	See Section II.B.1-3.
	Other Material	1.00 / ton	
Forest Improvement (FI) Fee Per ton:	Sawlogs	\$4.26 / ton	See Section II.B.4
Quarterly F.I. payment		\$11,154	(FI/ton x total tons / 6) See Section II.B.4

I. GENERAL TERMS

A. DEFINITION OF CONTRACT LANGUAGE: The following definitions apply to terms used in this Contract:

1. Administrator – The Forest Management Bureau Chief, Trust Land Management Division, Department of Natural Resources & Conservation
2. Board – The Montana Board of Land Commissioners.
3. Department – The Department of Natural Resources and Conservation.
4. Draw – A swale or drainageway that may not have perceptible or definite beds or banks.
5. Environmental Law – Includes, but is not limited to, the following laws and any regulations promulgated under these laws: the Comprehensive Environmental Response, Compensation and Liability Act (“CERCLA”) (42 U.S.C. § 9601 *et seq.*), as amended; the Resource Conservation and Recovery Act (“RCRA”) (42 U.S.C. §§ 6901 – 6987), as amended; the Clean Air Act (42 U.S.C. § 7401, *et seq.*), as amended; the Safe Drinking Water Act (42 U.S.C. § 300f *et seq.*), as amended; the Clean Water Act (33 U.S.C. § 1401 *et seq.*), as amended; the Clean Air Act of Montana (Mont. Code Ann. § 75-2-101 *et seq.*), as amended; the Montana Water Quality Act (Mont. Code Ann. § 75-5-101 *et seq.*), as amended; the Montana Solid Waste Management Act (Mont. Code Ann. § 75-10-201 *et seq.*), as amended; the Montana Hazardous Waste Act (Mont. Code Ann. § 75-10-401 *et seq.*), as amended; the Montana Comprehensive Environmental Cleanup and Responsibility Act (Mont. Code Ann. § 75-10-701 *et seq.*) as amended; and the Montana Underground Storage Tank Act (Mont. Code Ann. § 75-11-501 *et seq.*) as amended.
6. Forest Officer – The State field representative assigned the job of contract administration for this timber sale Contract. Except as otherwise expressly stated in the Contract, the Forest Officer is not authorized to modify the Contract on behalf of the State.
7. Hazardous or deleterious substance – Means a substance that, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may pose an imminent and substantial threat to public health, safety, or welfare or the environment, and is:
 - a. A substance that is defined as a hazardous substance by section 101(14) of CERCLA, 42 U.S.C. § 9601(14), as amended.
 - b. A substance identified by the administrator of the United States Environmental Protection Agency as a hazardous substance pursuant to section 102 of CERCLA, 42 U.S.C. § 9602, as amended.
 - c. A substance that is defined as a hazardous waste pursuant to section 1004(5) of RCRA, 42 U.S.C. § 6903(5), as amended, including a substance listed or identified in 40 CFR 261.
 - d. Any petroleum product.
8. Operating period – The annual time period during which field activities (logging, hauling, construction, etc.) may be conducted.
9. Paid or payment – Except as otherwise expressly stated in the Contract, full remuneration by either cash, money order or certified check.
10. Purchaser – The signatory party to this Contract other than the Administrator. Purchaser is also defined to include employees and agents of the Purchaser authorized to conduct activities as required for execution of the timber sale Contract. As an independent contractor, neither the

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Purchaser, its employees or agents are considered employees of the State of Montana pursuant to work performed under this Contract.

11. Sawlog – A green or dead log as further defined under Section VII.C.
12. State – The State of Montana and its agents and employees.
13. Stream – A stream is a natural watercourse of perceptible extent that has a sandy or rocky bottom or definite banks and confines and conducts continuously or intermittently flowing water.
14. Stumpage – The rate paid in dollars per ton as specified in Table 1 for Sawlogs and/or Other Material.
15. Supervisor – A person designated by the Purchaser in charge of operations on site at the sale area at all times when construction or harvesting operations are in progress. The Supervisor has authorization to receive notices from the Forest Officer and take appropriate action with regard to breach and/or violations of the terms of the contract.

B. REMOVAL OF TIMBER AND TITLE TRANSFER:

1. Provided the Purchaser has paid for timber as required in Section II.B.1, ADVANCE STUMPAGE PAYMENT, the Purchaser has the right to cut and remove timber from the sale area provided all Contract requirements related to the commencement of operations have been met.
2. Title to all timber included in this contract shall be retained by the State until:
 - a. The timber has been paid for.
 - b. The timber has been measured, as described in Section III.A. MEASUREMENT AND LOG ACCOUNTABILITY.
 - c. The timber has been properly marked and ticketed as described in Section III.C & E. MEASUREMENT AND LOG ACCOUNTABILITY, and removed from the gross sale area,
3. Title to timber remaining on the gross sale area at termination of the contract shall remain with the State of Montana.
4. As documented in this contract, or otherwise agreed to, all roads and other improvements become the property of the State as they are constructed.

C. TERM OF CONTRACT: This Contract is effective upon approval and execution by the Administrator and shall terminate on the Termination Date shown on page 1 unless terminated sooner for successful completion or for gross or persistent breach and/or failure to promptly and properly remedy contract violations of the Contract terms pursuant to Section IV. B, TERMINATION.

D. PRE-OPERATIONS MEETING: No activity may occur on the sale area until a pre-operations meeting is conducted between the Purchaser and the State. The Purchaser shall notify the Forest Officer at least seven (7) days prior to the start of operations to schedule the pre-operations meeting. The Forest Officer will specify to the Purchaser what information the Purchaser must provide to the State at the pre-operations meeting.

E. ANNUAL OPERATING PLAN: Purchaser may be required to submit a written annual operating plan, as specified by, and at the request of the Forest Officer.

F. CONTRACT TERM EXTENSION:

1. In the event that Purchaser's operations are delayed and Purchaser is not able to complete the requirements of this Contract prior to the termination date, the State may grant an extension of

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the term of this Contract. An extension will be considered by the State under only the following circumstances:

- a. The State determines an extension is in its best interests;
 - b. Purchaser applies for the extension in writing at least 30 days prior to the termination date.
 - c. The State notifies the Purchaser that an extension is required.
 - d. Purchaser has provided the State with written notice from the surety that the performance bond on this contract has been extended for a period commensurate with the requested contract extension.
 - e. Purchaser has made a good faith effort to complete the sale.
 - f. The extension request is not based on poor log and/or market conditions.
2. If the contract term extension is granted, Purchaser shall conduct continuous operations through the operating periods and/or resume operations at the start of the next operating period until the requirements of this Contract are completed. No extension shall be granted for a period longer than eighteen (18) months after the termination date as provided herein unless a longer extension is determined to be in the State's best interest.
 3. If the extension is requested and granted because of delays resulting from matters within Purchaser's control, the following will apply:
 - a. Purchaser shall pay an extension fee of \$ 500.00.
 - b. Stumpage rates for any volume cut, skidded or hauled during the extension period will be escalated a minimum of 10% to reflect the interest lost to the trust beneficiaries.
 - c. No de-escalation will occur from the time the extension is granted by the Administrator, as documented in a signed modification, through the remainder of the Contract.
 4. An extension may be granted to the Purchaser without penalty if the State prohibits logging activity for more than 2 weeks during the operating period described in this Contract.
 5. All conditions of this contract shall remain in force during any period of extension, unless those conditions are amended by the terms of the extension.
 6. In the event the Contract terminates pursuant to Section I.C, TERM OF CONTRACT due to expiration of the time within which its performance shall have been completed, and the Department has not granted an extension, the Purchaser shall immediately cease all operations within the Gross Sale Area as shown in Table 1. Operations beyond the contract termination date for which the Department has not granted an extension will be treated as trespass.
- G. LIABILITY FOR LOSS:** The Purchaser is responsible for loss, degradation, or damage to timber while the timber is in his, her or its custody, including but not limited to, timber which has been felled, skidded or decked and/or timber which has been lost, damaged or stolen after removal from the sale area but before scaling or weight is recorded.
- H. SUPERVISION:** When construction or harvesting operations are in progress, the Purchaser shall have exclusive control over the way the Contract is executed if, as determined by the Department, the Purchaser has and is complying with all terms and conditions provided herein. Purchaser is required to have a supervisor(s) in charge of operations on the sale area at all times. Such supervisor(s) shall have authorization to receive notices from the Forest Officer and take appropriate action with regard to breach and/or violations of the terms and conditions of the Contract.

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I. COMPLAINTS:

1. Complaints by the Purchaser concerning any action or decision of a Forest Officer, including suspension orders, must be made in writing to the Administrator postmarked within 30 days of the disputed action or decision. In the interim, Purchaser must comply with the directions of the Forest Officer.
2. Upon receipt of a complaint, the Administrator, or a designated representative, shall promptly hold an informal conference with the Purchaser and the Forest Officer to review the disputed action. The Purchaser shall be given adequate notice of the conference and shall be given the opportunity to present evidence and an argument to rebut the reasons given by the Forest Officer for the disputed action. After review, the Administrator shall notify the Purchaser in writing of his decision. The decision of the Administrator is final on behalf of the State, except regarding termination of the contract.

J. ASSIGNMENT: This contract shall not be assigned in whole or in part unless approved in writing by the Administrator.

K. MODIFICATIONS:

1. This contract, together with the attachments listed herein, contains the entire agreement of the parties and no statements, promises or inducements made by either party, or agents of either party, that are not contained in such written Contract shall be valid or binding. This Contract, except as described in Section I.K.2 below, cannot be enlarged, modified or altered except upon written agreement signed by all parties to this contract. Only the Administrator, his successor, his designated representative, or the Board of Land Commissioners, is authorized to enter into such modification on behalf of the State.
2. To protect cultural or natural resources the State may modify provisions of the Contract without prior agreement by the Purchaser. If such modifications occur the State will provide equitable compensation to the Purchaser for those modifications.

L. EQUAL EMPLOYMENT OPPORTUNITY: Pursuant to Section 49-3-207, MCA, any hiring by the Purchaser under this agreement must be based on merit and qualifications and there must be no discrimination based on race, color, religion, creed, political ideas, sex, age, marital status, physical or mental disability, or national origin by any person performing this Contract.

M. LIABILITY INSURANCE:

1. Prior to the execution of this Contract, the Purchaser or their agents shall obtain, carry and keep in good standing for the remainder of the contract period, with any extensions:
 - a. Comprehensive general liability insurance coverage to the limit of \$1,000,000.00 per occurrence and \$2,000,000.00 per aggregate. Each such policy shall include endorsements, which shall name the State as an additional insured and shall provide that the State shall be given 30 days' written notice, at the address stated above, prior to cancellation or any material change in such policy.
 - b. Automobile Liability Insurance: The Purchaser shall purchase and maintain coverage with split limits of \$500,000 per person (personal injury), \$1,000,000 per accident occurrence (personal injury), and \$100,000 per accident occurrence (property damage), OR combined single limits of \$1,000,000 per occurrence to cover such claims as may be caused by any act, omission, or negligence of the contractor or its officers, agents, representatives, assigns, or subcontractors.
2. In lieu of such coverage, the Purchaser may provide proof of self-insurance in at least an amount equal to that provided above.

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3. Prior to the commencement of any work to be performed under this contract, Purchaser shall deliver to the State a certificate of insurance from the insurer(s) of the Purchaser or their agents certifying that coverage in at least the amounts stated above is in force. Such certificate shall be submitted to the State for approval of the insurer(s), the amount, and the form. The State reserves the right to require a certified copy of any such policy or to examine the policy itself.
4. A self-insured Purchaser shall provide an equivalent certificate of insurance subject to the approval of the State.
5. It is further understood and agreed that this Contract shall terminate immediately in the event that the mandatory liability insurance coverage required under this part is for any reason not obtained or is discontinued.

N. WORKERS' COMPENSATION INSURANCE:

1. Prior to the commencement of any work under this Contract, Purchaser shall provide written verification to the Administrator that all individuals who are to be engaged in work under this Contract, including but not limited to employees, agents or independent contractors of the Purchaser or of its subcontractors, are either insured for workers' compensation coverage or are exempted from such coverage as certified independent contractors pursuant to § 39-71-401 MCA.
2. It is expressly understood and agreed that no such individual may engage in work in furtherance of this Contract at any time during its period unless either insured for workers' compensation coverage or exempted from such coverage as indicated above.
3. It is understood and agreed that this Contract shall terminate immediately if workers' compensation coverage or exemptions required under this part is discontinued for any individuals engaged in work under this Contract.

O. SAFETY: The Purchaser, employees, subcontractors and their employees shall conduct their activities in a safe and workmanlike manner, shall cooperate in making it possible for the Forest Officer to safely, efficiently, and economically perform his, her or its administrative duties, and shall comply with federal and State safety standards for logging operations as established by the United States Department of Labor, Occupational Safety and Health Administration (OSHA; 29 Code of Federal Regulations 1910 and any other such applicable regulations promulgated by OSHA) and as required by Title 50, Chapter 71 of the Montana Code Annotated, and any regulations promulgated to implement the statutes found in that Title and Chapter of the Montana Code Annotated. The Purchaser, and not the State, is responsible for instituting and maintaining all precautions, procedures and programs for the safety of all persons on the project site, and the State hereby disclaims any and all responsibility for injuries or accidents occurring at the site.

P. SAWMILLS PROHIBITED: No sawmills shall be allowed to operate on the gross sale area.

Q. LOG CHIPPERS OR GRINDERS: No log chippers or grinders shall be allowed to operate on the gross sale area unless written approval to do so is granted by the Forest Officer. In order for approval to be granted, the Purchaser shall identify a method acceptable to the State for the measurement of all wood to be ground or chipped. If the Purchaser intends to operate a log chipper outside of the gross sale area, provisions must be made for obtaining certified weights of either the material removed from the sale or of the resultant products.

R. SALE DELAYED OR PRECLUDED BY JUDICIAL ACTION OR GOVERNMENT REGULATORY ACTION:

1. In the event judicial action, change in applicable law, or implementation of government regulatory action renders proceeding with this contract unlawful, the State will suspend or terminate the Contract in whole or in part. Upon notice of such suspension or termination, Purchaser shall

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immediately cease all or any portion of such operations under the Contract as directed by the State. If a court of competent jurisdiction has entered a final judgment rendering further proceeding with this Contract unlawful, or government regulatory action takes effect, the State may terminate the Contract or, at the State's option, suspend the Contract in whole or in part, pending appeal of the court's final judgment. If the Contract is suspended, the State shall not be liable to the Purchaser for damages or losses resulting from the delay. In the event the Contract is terminated due to judicial action, a change in law, or government regulations, the State shall be liable to Purchaser only as follows:

- a. The State shall refund any portion of advance stumpage payments or down payments not needed to compensate the State for timber removed.
 - b. The State shall release any portion of the performance bond not needed to compensate the State for timber removed or other losses suffered by the State due to breach of contract by the Purchaser.
 - c. The State shall reimburse the Purchaser for the portion of reasonable costs of constructing or improving roads or of installing other facilities on State lands pursuant to this Contract that the Purchaser has not been able to use for removing timber. The Purchaser shall provide documentation requested by the State of the Purchaser's actual costs of constructing or improving such roads or installing other improvements.
- S. VENUE AND CHOICE OF LAW:** In the event of litigation concerning this agreement, venue shall be in the First Judicial District, Lewis and Clark County, Montana, and this agreement shall be governed by the laws of the State of Montana both as to interpretation and performance.
- T. AUTHORIZATION TO ENTER:** The Purchaser is authorized to enter the sale area only for purposes related to the performance of this Contract.
- U. USE BY OTHERS:** The State reserves the right to issue timber permits or other permits on the sale area for forest products not included in this Contract or for other uses not in conflict with this Contract. The State also reserves the right to permit other persons to cross the sale area to gain access to other lands for fire suppression or for other purposes. Where the Purchaser improves or reconstructs an existing road, the use thereafter by the Purchaser shall accommodate safe use by others.
- V. OTHER OPERATIONS BY THE STATE:** The State reserves the right to at any time conduct within the gross sale area forest management operations including, but not limited to, slash piling, burning, handwork, broadcast burning, mop-up, patrolling, thinning and tree planting during the term of this Contract.
- W. INDEMNITY AND LIABILITY:**
1. The Purchaser agrees to indemnify the State, its officials, agents, and employees, while acting within the scope of their duties and hold the State harmless from and against all claims, demands, and causes of action of any kind or character, including the cost of defense, arising in favor of the Purchaser's employees or third parties on account of bodily or personal injuries, death or damage to property arising out of services performed, goods or rights to intellectual property provided or omissions of services or in any way resulting from the acts or omission of the Purchaser and/or its agents, employees, subcontractors or its representatives while engaged in work under this Contract, all to the extent of the Purchaser's negligence.
 2. The Purchaser shall be responsible for, indemnify, defend and hold the State harmless from and against any loss, cost (including, without limitation, reasonable legal, accounting, consulting, engineering and similar expenses), damage, claim, fine or liability, including the necessity for tests, inspections or other work, and any damage, claim, fine or liability arising as a result of such tests, inspections or other work, the State must perform:

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- a. Based upon an actual or alleged violation by the Purchaser of, or failure by the Purchaser to comply with, any Environmental Law during the term of this Contract;
 - b. Arising from the discharge, release, threatened release, handling, storage, treatment, deposit or disposal of any Hazardous or Deleterious Substances caused or exacerbated by the activities of the Purchaser on or in the gross sale area during the term of this Contract; or
 - c. Otherwise arising out of or in connection with any environmental condition or action caused or created by the Purchaser.
- X. OTHER LAWS AND REGULATIONS:** This Contract is subject to all applicable federal, state, county, and municipal laws, ordinances, and regulations in effect at the date of this Contract or which may, from time to time, be adopted, and which do not impair the obligations of this Contract and which do not deprive the Purchaser of an existing property right recognized by law. A violation by the Purchaser of any federal, state, county, and/or municipal laws, ordinances and/or regulations while conducting operations under the terms of this Contract, shall, in the discretion of the State, constitute sufficient reason for the suspension or termination of this Contract. If any part of the lands or premises under this Contract are used or allowed or permitted to be used for any purpose contrary to the laws of this state or the United States, such unlawful use shall, in the discretion of the State, constitute sufficient reason for the suspension or termination of this Contract.
- Y. FORCE MAJEURE:** Neither party shall be responsible for failure to fulfill its obligations due to causes beyond its reasonable control, including without limitation, acts or omissions of government or military authority, acts of God, materials shortages, transportation delays, fires, floods, labor disturbances, riots, wars, terrorist acts, or any other causes, directly or indirectly beyond the reasonable control of the nonperforming party, so long as such party is using its best efforts to remedy such failure or delays. Force majeure will not relieve the Purchaser from liability for damage or otherwise excuse performance of this Contract should the Purchaser cause a fire for which they would be liable under § 50-63-103, MCA.

II. CHARGES AND PAYMENTS

A. PERFORMANCE BOND:

1. As a guarantee of the faithful performance of this Contract, Purchaser shall furnish a bond, with sufficient sureties, to the State in an amount equal to the potential loss to the State in the event of Purchaser's breach or default under the terms of this Contract as determined by the Administrator (§ 77-5-202 (a), MCA). The performance bond may be in cash, bond, irrevocable letter of credit, or certificate of deposit with sufficient sureties. A letter of credit must be automatically renewable without amendment for the term of the contract. The performance bond the Purchaser must submit for this contract is shown in Table 1.
2. Upon full performance of the terms of the Contract, the State shall release the performance bond.
3. Upon substantial performance of the terms of the Contract, the Administrator may release a portion of the performance bond not needed to compensate the State for any remaining timber to be removed or any other losses that may be suffered by the State due to breach of Contract by the Purchaser. The bond shall not be reduced to less than five percent (5%) of the estimated value of the timber sold.

B. PAYMENTS: The Purchaser agrees to make payments to the Treasurer of the State of Montana as follows:

1. **ADVANCE STUMPAGE PAYMENTS:** The Purchaser is required to pay for all timber in advance of cutting at the rates shown in Table 1. Advance stumpage payments will be held by the State to cover the Purchaser's estimated timber cutting for at least six (6) weeks of operations. Advance

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stumpage payments may be reduced just before completion of the sale or when cutting requirements are to be suspended for at least 3 months. Advance stumpage payments may be in cash, bond, irrevocable letter of credit, or certificate of deposit with sufficient sureties.

2. **INITIAL ADVANCE STUMPAGE PAYMENT:** The initial advance payment will be made by the Purchaser prior to the start of timber cutting operations.
3. **PAYMENT SCHEDULE:** Payments in full for individual invoices will be made by the Purchaser as called for by the Administrator; in no event will payments be made by the Purchaser more than 14 days from the date of billing.
4. **FOREST IMPROVEMENT PAYMENTS:** The Purchaser is required to pay a fee for Forest Improvement on all sawlogs cut, both live and dead. The Forest Improvement fee for this sale is shown in Table 1. The Purchaser agrees to make these payments in 6 installments. The first 5 payments will be calculated using this formula: [Forest Improvement fee per ton times total estimated tons divided by 6]. The final payment will be made in conjunction with the final sale billing. The amount of the final billing will be adjusted to reflect payment due based on the actual sale weight. The Purchaser will be billed quarterly for the 5 payments on or about the first day of January, April, July and October. Payments will start on the first quarterly billing date after contract signature or as otherwise determined by the Administrator. If the sale is completed before all the Forest Improvement payments have been made, the Purchaser will be billed for the balance owed.

C. ROAD USE AND MAINTENANCE PAYMENTS:

1. **PAYMENTS:** The Purchaser is required to make payments for road use and maintenance at the rates listed in Table 1 or as amended by revisions to road use permits. Payments will be made as called for by the Administrator or as otherwise directed in this contract.
2. **ALTERNATE HAUL ROUTES:** The Purchaser is authorized by the State to use the haul route described in this contract and attachments. If the Purchaser chooses to use an alternate haul route, that haul route must be approved by the State. Road use charges, maintenance requirements and payments may be adjusted to reflect the haul route used by the Purchaser. The Purchaser is responsible for obtaining any right-of-way required for an alternate haul route and for meeting all requirements of any agreements associated with that right-of-way. Proof of any such agreement must be provided to the State prior to use. Stumpage fees and Forest Improvement fees are not subject to a downward adjustment under this clause.

III. MEASUREMENT AND LOG ACCOUNTABILITY

A. PRODUCT MEASUREMENT:

1. The State will determine the value of products removed from the sale based on the total gross weight of material hauled. Weight tickets will be used to obtain the total value.
2. When mixed products with different payment rates per ton are hauled on one load, the entire load will be charged at the rate of the product with the highest value contained in the load.
3. Upon request by the State, the most recent load delivered to a receiving mill must be made available for inspection by the State or their representatives. The weight ticket identifying the load must remain affixed to the load.

- B. WEIGHT TICKETS:** The Purchaser is required to furnish weight tickets to the State as agreed to by the Forest Officer and the Purchaser.

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1. All weight tickets shall be mailed or delivered with corresponding load tickets, as outlined below, directly to the DNRC Unit or Land Office administering this contract. In this case, send truck tickets to **DNRC Stillwater Unit, PO Box 164, Olney, MT 59927**. This requirement may be waived or changed by the Forest Officer.
 2. Weight tickets shall show gross, tare and net weights and the corresponding load ticket number of each product load. Weight tickets must be from State of Montana certified scales, and all weight tickets must have mechanically stamped weights for the gross and tare weights unless otherwise permitted in writing by the Forest Officer. Weight tickets will be mailed or delivered to the State on a bi-weekly basis or as otherwise agreed to by the Forest Officer. A weight ticket will be considered as missing if not furnished within 4 weeks of the load delivery date. Failure to comply with this provision is a contract violation.
 3. Truck ticket information may be provided to DNRC electronically if all required ticket information is provided. Contact Forest Product Sales Supervisor (406) 542-4276 at the Forest Management Bureau to implement electronic transfer. The information must be provided to the State on a bi-weekly basis prior to the tenth (10th) and twenty-fourth (24th) of each month. The paper copy of the weight tickets must also continue to be provided to the State. The requirement to supply the paper copy of the weight tickets may be waived by the Administrator.
- C. LOAD TICKETS:** The Purchaser will be issued load ticket books with consecutively numbered tickets for uniquely identifying truckloads of logs. A load ticket shall be attached to the driver's side bunk log of each product load prior to hauling, with the Scaler's copy given to the State from the delivery point. The Purchaser shall complete each ticket with the sale information required by the State. The Purchaser shall provide to the Forest Officer a complete list of destinations to which loads will be delivered. The State, at its discretion, may require a separate ticket book for each destination. Failure to comply with this provision is a contract violation.
- D. SORTING OF PRODUCTS:** The State may require separate ticket books for any loads sorted by the Purchaser by size or species or by specific products intended for different delivery points. Load tickets designated for a specific product must only be used for that specific product. When a load ticket is used with an incorrect product it is a contract violation.
- E. LOAD MARKING:** The Purchaser is required to mark all loads of logs before removal from the loading area to assist in identification while in transit or at the point of delivery. Marking shall be accomplished by painting "ST" in blue paint and the last three digits of the truck load ticket number on log ends of at least three logs on each load, both front and back. The driver's side bunk log shall be one of the marked logs. Failure to comply with this provision is a contract violation.
- F. PROMPT DELIVERY:** The Purchaser will deliver loads from the timber sale area to a receiving log yard directly without diversion. "Over-nighting" loads during transit are expressly forbidden unless approved by Forest Officer prior to hauling. Failure to comply with this provision is a contract violation.
- G. SCALE RULE:**
1. Any sawlogs scaled by the State shall be scaled using the Scribner Decimal "C" log rule. Log scaling will follow the procedures listed in the National Forest Log Scaling Handbook (FSH 2409.11) excluding Region 1 supplements.
 2. In cases where conversion is required, a conversion factor of **6.24** tons per thousand board feet will be used for sawlogs.

IV. CONTRACT VIOLATIONS AND PENALTIES

A. SUSPENSION:

1. **FAILURE TO PAY ADVANCE STUMPAGE:** If Purchaser fails to submit advance stumpage payments as directed by the Administrator pursuant to the terms of this Contract within 30 days of the request for such payments, all operations covered by this Contract shall immediately cease upon written or oral order from the State until all required advance stumpage payments, or guarantee of payment satisfactory to the State, have been made. The cutting and removal of timber may resume only upon receipt of written notice to the Purchaser from the State that acknowledges adequate payment or guarantee.
2. **LOSS OF BOND:** If the surety bond or other bond securing performance of this Contract is canceled or otherwise becomes ineffective, operations covered by this Contract shall immediately cease upon written or oral order from the State to the Purchaser. Cutting and removal of timber may resume only upon receipt of written notice from the State that acknowledges adequate bond.
3. **OTHER CONTRACT VIOLATIONS:**
 - a. Should the Forest Officer observe a condition that violates the terms of this Contract, the Forest Officer may verbally notify the Purchaser or its employees or subcontractors of such condition and immediately suspend all or part of the operations in the sale area to prevent harm to the interests of the State or the public. Should the Purchaser or its employees or subcontractors fail to comply with any verbal suspension order, the Administrator may terminate the Contract pursuant to Section IV. B. Termination. The Forest Officer may rescind his/her verbal suspension order upon satisfactory cure of the Purchaser's violation and operations may resume.
 - b. Suspension orders may be given in writing or verbally to the Purchaser, or to his, her or its employees or subcontractors. Once given, the Purchaser, and his, her or its employees or subcontractors shall immediately comply with such order of suspension and failure to do so shall constitute grounds for termination of this Contract. Suspension orders are reviewable under the provisions described in Section I.I. COMPLAINTS.
 - c. The Administrator may issue a written notice of suspension depending upon the severity of the violation and Purchaser's ability to cure. Such notice shall contain information regarding:
 1. The breach observed and harm anticipated;
 2. The contract provisions violated;
 3. If possible, the measures required to cure the violation and allow operations to resume; and
 4. The deadline within which the Purchaser must cure the violation.Should the Purchaser fail to cure the violation as required, or to obtain a written variance from the Administrator, the Administrator may charge the Purchaser a \$250 per day penalty for every day that the violation persists. Operations may resume only upon written notice from the Administrator. If satisfactory measures or remedies cannot be found to cure the violation, the Administrator may immediately terminate the Contract pursuant to Section IV.B. TERMINATION.

B. TERMINATION:

1. Gross or persistent contract violations and/or failure to promptly and properly remedy contract violations by the Purchaser pursuant to the terms of this Contract shall be grounds for termination of the Contract by the State.
2. If this Contract is terminated by the State, the Administrator shall immediately notify the Purchaser of the termination and the reasons for it by certified mail. Such notice shall describe in what respects the Contract has been breached, the means, if any, by which the breach can be remedied and the consequences of such termination. The Contract shall be terminated 18 days from the date the notice is mailed to the Purchaser at the address stated in this Contract.

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3. Upon receipt of the notice of termination the Purchaser shall immediately cease all operations pursuant to and permitted by the contract until the termination is resolved as provided pursuant to this Section of the Contract, Section IV.B. TERMINATION.
4. The Purchaser has 18 days after mailing of the notice of termination within which to file with the State a notice of appeal for a hearing before the Board of Land Commissioners or its appointee. If a timely notice of appeal is filed, the Contract remains in effect until the decision of the Board, but any suspension order shall remain in effect in the interim. The Board or its appointee shall conduct an informal open hearing to determine whether the Contract should be reinstated.
5. If the Contract is reinstated the Purchaser will not be penalized for any delays that resulted from the appeal.
6. If the Contract is terminated for breach and not reinstated, it is understood that the State may refuse to accept bids or proposals submitted under 77-5-212 MCA from the Purchaser on future State timber sales and permits for a minimum period of 2 years.

C. LIABILITY FOR DAMAGES:

1. The Purchaser shall be liable for any damages sustained by the State arising from Purchaser's breach of the terms of this Contract and the State may cause all or part of the performance bond to be forfeited to recover such damages.
2. In the event that a portion of the timber sale under this Contract is resold as a result of the Purchaser's forfeiture and the stumpage rate pursuant to the resold contract is lower than the stumpage rate provided herein, the difference between the original rate and the new rate shall be considered damages and the Purchaser shall be liable to the State for those damages. The State may cause all or part of the Purchaser's performance bond to be forfeited to recover such damages.

D. STATE'S OPTION TO COMPLETE CONTRACT REQUIREMENTS: If the Purchaser fails to complete the requirements described in this Contract in a timely manner or if the Contract is terminated pursuant to Section IV.B. TERMINATION, the State reserves the right to complete the work itself or through a contractor. The Purchaser will be billed for any additional costs incurred by the State due to the Purchaser's failure to perform the requirements of this Contract. These additional costs may include State employee time and expenses that were extraordinary to the normal administration of the contract, such as time and expenses incurred to hire a replacement contractor. Purchaser's failure to make payment within 14 days from the date of billing may cause all or part of the performance bond to be forfeited to recover such costs.

E. WAIVER OF PENALTIES: The penalties specified in this section shall be regarded as liquidated damages and may be waived or reduced at the discretion of the Administrator in exceptional cases.

F. FOREST PRACTICES LAWS: The Purchaser shall conduct logging operations in compliance with all laws relating to forest practices in the State of Montana. The Purchaser shall be responsible for all reclamation and penalties that result from violations of applicable forest practices laws.

G. LOGGING REQUIREMENT VIOLATIONS:

1. **HIGH STUMPS:** The Purchaser may be charged \$25.00 for each tree stump cut higher than 12 inches on the side adjacent to the highest ground except in unusual cases when this height is not considered practical.
2. **LONG BUTTS:** The Purchaser may be required to pay \$25.00 per long butt for cutting long butts that contain useable material in excess of the minimum net scale in percentage of gross shown in Table 2.

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3. **LARGE TOPS:** The Purchaser may be required to pay for cutting tops larger than the Top Diameter Inside Bark (DIB) shown in Table 2. This charge will be at the current contract rate for the net volume by species, or \$25.00 per large top, whichever is greater.
4. **UNDESIGNATED TREES:**
 - a. Undesignated or reserve trees that are cut or damaged as a result of Purchaser's operations shall be considered cut in trespass and the Purchaser may be charged three times the highest Contract stumpage rate (minimum \$10.00/ton) for the Contract product class(es) the tree contains.
 - b. If the Forest Officer determines that a suitable replacement for a reserve tree as described above is not available, Purchaser agrees to pay the State \$500.00 per tree, in addition to the rates charged in Section IV.G.4.a. UNDESIGNATED TREES.
5. **FAILURE TO REMOVE:** The State may charge the Purchaser for trees that are designated for cutting under the terms of this contract and/or logs that meet the Manufacturing and Recovery Standards shown in Table 2 that are not removed from the sale area or presented for measurement. This charge may be up to triple the Contract stumpage rate plus the Forest Improvement rate for the class of material contained in those trees fixed in accordance with the terms of this Contract. If the State removes such material from the sale area, the Purchaser will be required to reimburse the State for all applicable cutting, yarding, processing, loading and hauling costs.
6. **LOSS IN WEIGHT DUE TO PURCHASER DELAY:** Up to a 15% increase in net weight of logs will be added by the State for loss in weight due to delay by the Purchaser in delivering cut logs to the manufacturing point. A delay is defined as in excess of 30 days after felling.

H. MEASUREMENT AND LOG ACCOUNTABILITY VIOLATIONS:

1. **MISSING LOAD TICKETS:** The Purchaser will be charged up to \$500.00 for each unused load ticket that the Purchaser has lost or misplaced while in his, her or its possession. An unused ticket is defined as a ticket that is not turned into the State with an associated truckload weight.
2. **FAILURE TO ATTACH OR COMPLETE LOAD TICKET:** The Purchaser may be charged \$500.00 per load for failure to attach a load ticket to each product load prior to hauling, or for failure to complete the load ticket with all required information.
3. **MISSING WEIGHT TICKETS:**
 - a. The Purchaser will be charged up to triple the Contract stumpage rate plus the Forest Improvement rate $[(\text{stumpage} + \text{FI}) \times 3 = \text{penalty}]$ for each truck weight ticket not furnished to the State.
 - b. The Forest Officer will notify the Purchaser of each missing weight ticket.
 - c. The load weight will be determined by averaging weights from other loads hauled by the Purchaser to the same mill within the same billing period, or 30 tons for single loads and 38 tons for loads with a pup trailer attached.
 - d. For Other Material, as defined by this Contract, the minimum stumpage for purposes of penalty shall be \$10.00 per ton or the Contract stumpage rate multiplied by 3, whichever is higher. The Forest Improvement fee is not included in Other Material penalties.
4. **IMPROPERLY LABELED PRODUCT:** The Purchaser may be charged \$500.00 per load for loads with an incorrect load ticket for the product (Sawlog or Other Material) in the load. In addition, the stumpage paid for an improperly ticketed load shall be at the highest Contract stumpage rate for products hauled pursuant to this Contract.

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5. **IMPROPERLY MARKED LOADS:** The Purchaser may be charged \$40.00 per load for each load not marked in accordance with Section III.E. LOAD MARKING.

I. RESOURCE PROTECTION VIOLATIONS:

1. The Purchaser may be charged five hundred dollars (\$500.00) per piece of equipment determined to have entered sale area without Forest Officer inspection in accordance with VI.J. NOXIOUS WEED MANAGEMENT. This charge does not relieve the Purchaser from requirement VI.J. NOXIOUS WEED MANAGEMENT.

- J. FAILURE TO MEET COMPLETION DATES:** The Purchaser may be charged \$100.00 for each complete calendar day the Purchaser fails to meet the deadlines shown in Table 3 and Table B1.

- K. LATE PAYMENTS:** The Purchaser may be charged \$100.00 per day beginning the 15th day after the billing date for failure to pay for forest products, pursuant to Section II.B PAYMENTS.

V. FIRE PROTECTION

- A. FIRE REGULATIONS:** The Purchaser is required to conduct all operations in accordance with the Montana Forest Fire Regulations, Attachment C.

- B. FIRE PREVENTION:** During the time that this Contract remains in force, the Purchaser shall, to the greatest extent practicable, prevent forest fires on the area described in this Contract and in its vicinity, and shall require all employees, contractors and employees of contractors to do likewise.

- C. OPEN BURNING REQUIREMENTS:** The Purchaser is required to conduct any burning of slash or other debris in accordance with the Montana Department of Environmental Quality open burning restrictions. The Forest Officer must be notified prior to the start of any burning operations.

- D. FIRE SUPPRESSION:** Unless prevented by circumstances over which he, she or it has no control, the Purchaser shall place qualified employees, contractors and employees of contractors and all equipment at the disposal of any authorized State, County, or Federal Forest Officer for the purpose of fighting forest fires. Payment for such services shall be made at rates to be determined by the Forest Officer, which shall be within a range of payment rates shown in the Interagency Incident Business Management Handbook, NWCG Handbook 2. Any employees or equipment furnished by the Purchaser, contractors or employees of contractors, shall be relieved from fire fighting as soon as it is practicable for the Forest Officer to obtain other adequate labor or equipment.

- E. FIRE COSTS:** The costs borne by the State for suppressing fires that are intentionally lit by the Purchaser or that are caused by negligence or fault in the Purchaser's operations shall be paid by the Purchaser to the State. The Purchaser shall also be liable for property and resource damage resulting from these fires.

- F. FIRE REPORTING:** Any wildfires, which the Purchaser detects or suppresses, must be reported as soon as possible to the responsible fire protection agency and the Department.

- G. SUSPENSION OF OPERATIONS:** When fire danger reaches extreme levels that cause operations to be curtailed through Stage II, Hoot Owl requirements or other measures, the State may suspend operations until fire conditions in and/or around the sale area improve. The State will grant a contract extension to compensate for the time suspended.

- H. CONTACT INFORMATION:** The Purchaser will provide the Forest Officer with phone numbers of the Purchaser and their employees and contractors when logging operations are in progress (including nights and weekends), in order to establish contact if a wildfire occurs within the sale area or on other lands accessed by road systems associated with the sale.

VI. RESOURCE PROTECTION

- A. DAMAGE PREVENTION:** The Purchaser shall use reasonable skill and care in all operations to prevent damage to soils, trails, meadows, stream banks, stream channels, wetlands, lakeshores or other natural features of the sale area.
- B. STREAM PROTECTION:**
1. Construction and logging equipment will not be operated in Streamside Management Zones. An exception may be provided for through this Contract or the Forest Officer may grant written permission. Additional protection measures may be required in Section VII.G, SPECIAL OPERATING REQUIREMENTS and in Contract Attachments.
 2. The Purchaser shall notify the Forest Officer immediately if debris from logging or construction enters a stream or stream channel.
 3. The Purchaser shall remove any debris resulting from logging or construction operations, which may affect the natural flow of any streams traversing the sale area. This work will be completed in a manner that causes the least disturbance to the streams, as directed by the Forest Officer.
 4. Logs shall not be hauled, skidded or yarded across streams unless the logs are fully suspended, or otherwise yarded as specified in this Contract. The Forest Officer must approve all logging and construction plans, including changes, before implementation.
 5. All operations shall be conducted in a manner to comply with Montana Water Quality Standards, the Streamside Management Zone Law, and all applicable permits.
- C. CULTURAL RESOURCES:** If a cultural resource is discovered, the Purchaser shall immediately suspend all operations in the vicinity of the cultural resource and notify the Forest Officer. Operations may only resume if authorized by the Forest Officer. Cultural resources identified and protected elsewhere in this contract are exempted from this clause. Cultural resources, once discovered or identified, are not to be disturbed by the Purchaser, or his, her or its employees and/or sub-contractors.
- D. DISCOVERY OF THREATENED AND ENDANGERED SPECIES:**
1. If a specific habitat feature for a federally listed threatened or endangered species is encountered, the Purchaser shall suspend all operations in the vicinity of the observation or discovery and immediately notify the Forest Officer. Operations may resume only if authorized by the Forest Officer. Habitat features identified and protected elsewhere in this contract are exempted from this clause.
 2. If a federally listed threatened or endangered species is encountered, the Purchaser shall immediately notify the Forest Officer. The Purchaser may be required to suspend operations in the vicinity of the observation or discovery. If suspended, operations may resume only if authorized by the Forest Officer.
- E. SANITATION:** The Purchaser's operations, as described by this contract, shall comply with all applicable State laws, rules and regulations concerning sanitation in operations. Refuse resulting from the Purchaser's activities, including the use, servicing, repair, or abandonment of equipment, shall be removed, buried or otherwise disposed of in a manner that complies with all State laws and meets the approval of the Forest Officer. The Purchaser shall not service tractors, trucks and similar pieces of equipment on lands that directly drain into or are within 100 feet of lakes, streams or recreational facilities. No logging camp will be located on the gross sale area without prior approval by the Forest Officer.

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- F. HAZARDOUS SUBSTANCES:** In addition to the indemnification provided in Section I.W.2. INDEMNITY AND LIABILITY, with respect to Hazardous Substances, the following duties shall apply:
1. The Purchaser shall know and comply with regulations governing the storage, handling, application, disposal, and reporting of pesticides, herbicides, containers, biological waste, petroleum products, dust abatement compounds, and other hazardous substances. The Purchaser shall obtain the approval of the Forest Officer to store, handle, apply or dispose of these substances on State land.
 2. The Purchaser shall not transport, handle, store, load, apply, or dispose of any hazardous substance in such a manner as to pollute water supplies or waterways, or cause damage or injury to people, land, desirable plants, and animals.
- G. PROTECTION OF IMPROVEMENTS:** The Purchaser shall to the greatest extent practicable protect from damage all gates, signs, telephone lines, power lines, fences, irrigation ditches, cattle guards, drainage structures, road improvements, and any other improvements or infrastructure within the gross sale area and/or along haul routes. Damages caused by the Purchaser, his, her or its employees or subcontractors, and expenses associated with the repair or replacement of damaged structures and improvements are the sole responsibility of the Purchaser.
- H. PROPERTY CORNER RESTORATION:** The Purchaser is required to replace any General Land Office township, section, quarter or meander corners, monuments or witness trees on or adjacent to the timber sale area which may have been moved, disturbed or lost, as a result of the Purchaser's logging or construction operations. Any necessary replacements must be carried out by a licensed surveyor at the Purchaser's expense.
- I. PASSABLE ROADS:** The Purchaser will leave all roads and trails free from obstruction by logs, brush or debris following the completion of logging operations. Temporary or permanent obstructions may be acceptable if approved by the Forest Officer.
- J. NOXIOUS WEED MANAGEMENT:** All equipment used in road construction and off-road logging activity must be pressure-washed by the Purchaser and inspected by the Forest Officer prior to entering the sale area. This cleaning will remove all dirt, plant parts, and material that may carry noxious weed seeds into the sale area. Other equipment and vehicles entering and leaving the sale area shall be cleaned prior to start up and kept reasonably clean during the course of operations. All subsequent move-ins of logging and construction equipment shall be treated the same as the initial move-in.
- K. WILDLIFE PROTECTION:**
1. The Purchaser is authorized to enter areas closed by gates, barricades or berms with motorized vehicles only for the purposes related to the performance of this contract. Motorized vehicle entry for purposes other than contract performance, such as hunting or transporting game animals will be considered trespass and prosecuted to the fullest extent of the law (Montana Code Annotated § 45-6-203).
 2. The Purchaser is prohibited from carrying firearms while conducting contract operations [ARM 36.11.432(1)(c); 36.11.443(2)].
 3. The Purchaser will store human or pet food, livestock food, garbage, and other attractants in a bear-resistant manner.
 4. The Purchaser will not bury or discard attractants in the sale area, or burn attractants (such as food leftovers) in an open campfire.
 5. The Purchaser will provide each employee with a copy of Attachment D "Working in Bear Habitat" Brochure.

VII. LOGGING

A. TREES DESIGNATED FOR CUTTING: All trees meeting the following requirements must be cut by the Purchaser.

1. **TREES IN UNITS:** Trees that meet the Minimum Log Size of Trees Designated for Cutting in Table 2 are to be cut in each unit according to the Marking specifications shown in Section VII.F. UNIT DESIGNATIONS.
2. **RIGHT-OF-WAY TREES:** All trees within road right-of-way boundaries must be cut.
3. **DAMAGED TREES:** Reserved trees, which are root-cut, damaged by felling or skidding, uprooted or broken off by the Purchasers operations may be designated for cutting by the Forest Officer. The Forest Officer may mark additional reserve trees to replace those that have been cut or damaged.
4. **FIRE KILL, INSECT INFESTATIONS AND WIND THROWN:** The Purchaser may be required to cut and remove at current contract rates, fire-killed, high hazard, disease infected, insect-infested or wind thrown (defined as blown down or wind-damaged to the extent that the tree is expected to fall or is dying) trees that occur in any part of the gross sale area while this Contract is in effect, if the Forest Officer determines that the stumpage value per ton of the additional timber is approximately equal to the value of the timber being harvested under this Contract .

B. TREES RESERVED FROM CUTTING:

1. **LEAVE TREES:** Trees, both live and dead, marked to leave or otherwise described to leave are reserved from cutting. Any trees not specifically required to be cut are reserved from cutting.
2. **BOUNDARY AND BEARING TREES:** Trees marking the boundaries of ownership, logging units, equipment restriction zones, streamside management zones, road rights-of-way, and bearing trees, are reserved from cutting unless otherwise designated by this contract or by the Forest Officer.
3. **VALID CLAIMS:** Timber to which there exists a claim under valid contracts with the State of Montana is exempted from this sale.

C. LOG MANUFACTURING AND RECOVERY STANDARDS:

1. **SAWLOG STANDARDS:** Trees cut by the Purchaser shall be manufactured to secure the maximum utilization of forest products according to III.G.1. All logs that meet or exceed the Manufacturing and Recovery Standards in Table 2 and this section shall be skidded to landings and hauled by the Purchaser.
 - a. Logs shall be bucked to utilize the entire length of the tree to the top diameter specified under Manufacturing and Recovery Standards in Table 2.
 - b. Logs meeting utilization specifications in Table 2 shall be manufactured in such a manner as to minimize waste during bucking operations.
 - c. A tree or log larger than 5.6" top DIB is considered to be a sawlog if it contains Scribner Decimal C Net Scale $\geq 33\%$ of Gross.
2. **OTHER MATERIAL:** The Purchaser may elect to remove other material that does not meet Sawlog Manufacturing and Recovery Standards in Table 2, only if approved by the Forest Officer. Such products shall be billed at the rate for other material shown in Table 1.
 - a. All contract provisions apply to the removal of Other Material.

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- b. Other Material that has been manufactured by the Purchaser shall be decked and hauled separately from sawlogs. All decked non-sawlog material must be hauled, or disposed of by the Purchaser in accordance with instructions of the Forest Officer. All hauled loads will have a truck ticket assigned and will meet the specifications in Section III, MEASUREMENT AND LOG ACCOUNTABILITY.
 - c. Butt cut logs (the first log cut above the stump) that meet LOG MANUFACTURING AND RECOVERY STANDARDS in Table 2, but do not meet TREES DESIGNATED FOR CUTTING minimum top DIB and length, may be considered as Other Material, not sawlogs.
3. DOWN WOODY MATERIAL: **10** to **20** tons per acre of downed woody material larger than 3 inches in diameter shall be left scattered throughout the sale units. Retain a minimum of one 20-foot-long log 15 inches in diameter per acre. The Forest Officer will determine the appropriate amount of material and may designate pieces to be left for this purpose that would otherwise be skidded and hauled under Sections VII.C.1 or VII.C.2, LOG MANUFACTURING AND RECOVERY STANDARDS.
 4. NUTRIENT RETENTION: Removal from the site of fine branches and leafy material shall be minimized.
 5. SNAGS: The Purchaser will retain a minimum of **2** snags per acre and **2** recruitment trees per acre that are >21 inches dbh within each harvest unit unless superseded by Section VII.F, UNIT DESIGNATIONS. If snags and recruitment trees of this size class are not available, the next largest available size class shall be retained. If snags present human safety concerns, the Purchaser may substitute snag recruits for snags upon approval of the Forest Officer. Snags cut for safety purposes shall remain in the unit.

TABLE 2.					
PRODUCT	TREES DESIGNATED FOR CUTTING		SAWLOG MANUFACTURING AND RECOVERY STANDARDS		
	The Purchaser must fell all trees marked or designated for cutting that contain a log of this minimum size.		The Purchaser must skid and haul all logs that meet this minimum specification.		
	Top DIB	Length	Top DIB	Length	Sawlogs meeting standards in Section VII.C.1.b through c
Sawlogs	5.6"	16.5'	5.6" - 8.5" 8.6"+	10.5' 8.5'	

D. TREE AND BOUNDARY MARKING:

1. TREES MARKED TO CUT: horizontal **blue** paint mark at Diameter Breast Height (DBH) and a mark below stump height.
2. TREES MARKED TO LEAVE: horizontal **orange** paint mark at DBH and a mark below stump height.
3. HARVEST UNIT BOUNDARIES: three horizontal **orange** paint stripes facing into the unit and orange flagging and/or orange and black SMZ flagging.
4. ROAD RIGHT-OF-WAY BOUNDARIES: N/A.
5. PROPERTY BOUNDARIES: **red** blazes and **red** flagging.
6. STREAMSIDE MANAGEMENT ZONES: .. fluorescent orange flagging stenciled with "STREAMSIDE MANAGEMENT ZONE".
7. EQUIPMENT RESTRICTION ZONES: orange and black striped flagging.
8. RIPARIAN MANAGEMENT ZONES: blue flagging.
9. NORTHERN GOSHAWK NEST:..... Nest tree marked with pink/black flagging. The 100-foot no-harvest buffer is marked with orange flagging.

E. HARVEST SCHEDULE: The Purchaser must cut and remove trees from the sale or portions of the sale, such as units, by the dates shown on the HARVEST COMPLETION SCHEDULE, Table 3:

TABLE 3. HARVEST COMPLETION SCHEDULE		
Priority	Unit or Portion of Sale	Completion Date
1	ALL	September 30, 2030

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F. UNIT DESIGNATIONS: The following requirements are to be performed by the Purchaser in the harvest units listed below and as shown on the sale map, Attachment A. Paragraph headings refer to paragraphs listed in Section VII.G, SPECIAL OPERATING REQUIREMENTS.

HARVEST UNIT NUMBER(S)	ACRES	ESTIMATED VOLUME (Tons)
1	85	6,099
YARDING METHOD: Combo: areas of cable yarding, shovel and/or tractor yarding.		
MARKING: None. Shelterwood (Cut by description) Operator select leave and cut trees based on following description: <ul style="list-style-type: none"> • Retain WL > DF > PP at 22 trees per acre (45' spacing), of which 2 must be snags + 2 snag recruits ≥ 21" or the largest diameter class per acre. • Live leave trees should have straight boles and full, green crowns with pointed tops. • Retain DF regen as much as practicable. <p>If the Forest Officer determines that the desired harvest prescription is not being met by the Purchaser, the Forest Officer may require the Purchaser to sample mark an additional portion of the unit and have that sample marked portion be approved by the Forest Officer. If the Purchaser continues to be unable to meet the harvest prescription requirements the Forest Officer may require marking of the entire unit by the Purchaser and approval of marking by the Forest Officer prior to continuing harvest.</p>		
OPERATING PERIOD: <ul style="list-style-type: none"> • June 16 - March 31, when soil conditions and hauling restrictions allow (Section VII.L. & N.). • No log hauling on weekends and holidays unless with prior approval from the Forest Officer. • East Smtih Road (private easement) must remain open and passable to vehicles. 		
SPECIAL OPERATING REQUIREMENTS: <ol style="list-style-type: none"> 1. NUTRIENT RECYCLING REQUIREMENT 2. SLASHING OF LOGGING-DAMAGED TREES REQUIRED 3. HIGH HAZARD FUELS REDUCTION & PILING REQUIRED 4. EQUIPMENT RESTRICTION ZONES/STREAMSIDE MANAGEMENT ZONE 6. TEMPORARY SPUR ROAD CONSTRUCTION REQUIRED 7. OPTIONAL TEMPORARY SPUR ROAD OR EXCAVATED SKID TRAIL CONSTRUCTION 8. SKID TRAIL SPACING 9. COMBINATION OF CABLE AND SHOVEL YARDING 10. COMBINATION OF SHOVEL AND TRACTOR YARDING 11. DELETION OF AREAS WITH BLIND LEADS 12. ALTERNATE YARDING SYSTEMS MAY BE APPROVED 14. LYNX HABITAT PROTECTION 15. RETENTION OF VEGETATION ALONG OPEN ROAD (East Lakeshore Dr & East Smtih Rd) 16. ROAD CLOSURE SIGNS AND MANAGEMENT REQUIRED (East Lakeshore Dr) 		

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HARVEST UNIT NUMBER(S)	ACRES	ESTIMATED VOLUME (Tons)
2	4	170
YARDING METHOD: Tractor		
MARKING: Marked to cut with blue horizontal paint at DBH. Old Growth Maintenance <i>Prescription:</i> <ul style="list-style-type: none"> • Retain 80-100 BA, leave trees from all size classes, WL > DF > Whitewoods at approximately 36-40 trees per acre (33-36' spacing), of which 2 must be snags + 2 snag recruits ≥ 21" or the largest diameter class per acre. • Retain all snags >7" DBH when possible. 		
OPERATING PERIOD: <ul style="list-style-type: none"> • June 16 - March 31, when soil conditions and hauling restrictions allow (Section VII.L. & N.). • No log hauling on weekends and holidays unless with prior approval from the Forest Officer. 		
SPECIAL OPERATING REQUIREMENTS: <ol style="list-style-type: none"> 1. NUTRIENT RECYCLING REQUIREMENT 2. SLASHING OF LOGGING-DAMAGED TREES REQUIRED 4. EQUIPMENT RESTRICTION ZONES/STREAMSIDE MANAGEMENT ZONE 7. OPTIONAL TEMPORARY SPUR ROAD OR EXCAVATED SKID TRAIL CONSTRUCTION 8. SKID TRAIL SPACING 13. LONG DISTANCE GROUND-BASED YARDING OF 1,000-1,500 FEET REQUIRED 14. LYNX HABITAT PROTECTION 17. OPTIONAL TEMPORARY BRIDGE INSTALLATION AND REMOVAL 		

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HARVEST UNIT NUMBER(S)	ACRES	ESTIMATED VOLUME (Tons)
3	6	288
YARDING METHOD: Tractor		
<p>MARKING: None.</p> <p>Shelterwood (Cut by description) Operator select leave and cut trees based on the following description:</p> <ul style="list-style-type: none"> • Retain WL > DF at 22 trees per acre (45' spacing), of which 2 must be snags + 2 snag recruits ≥ 21" or the largest diameter class per acre. • Live leave trees should have straight boles and full, green crowns with pointed tops. • Retain DF regen as much as practicable. <p>If the Forest Officer determines that the desired harvest prescription is not being met by the Purchaser, the Forest Officer may require the Purchaser to sample mark an additional portion of the unit and have that sample marked portion be approved by the Forest Officer. If the Purchaser continues to be unable to meet the harvest prescription requirements the Forest Officer may require marking of the entire unit by the Purchaser and approval of marking by the Forest Officer prior to continuing harvest.</p>		
<p>OPERATING PERIOD:</p> <ul style="list-style-type: none"> • June 16 - March 31, when soil conditions and hauling restrictions allow (Section VII.L. & N.). • No log hauling on weekends and holidays unless with prior approval from the Forest Officer. • West Smith Lake Road must remain open and passable to vehicles on weekends and holidays. 		
<p>SPECIAL OPERATING REQUIREMENTS:</p> <ol style="list-style-type: none"> 1. NUTRIENT RECYCLING REQUIREMENT 2. SLASHING OF LOGGING-DAMAGED TREES REQUIRED 3. HIGH HAZARD FUELS REDUCTION & PILING REQUIRED 8. SKID TRAIL SPACING 14. LYNX HABITAT PROTECTION 16. ROAD CLOSURE SIGNS AND MANAGEMENT REQUIRED (West Smith Lake Rd) 		

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HARVEST UNIT NUMBER(S)	ACRES	ESTIMATED VOLUME (Tons)
5	4	166
YARDING METHOD: Tractor.		
<p>MARKING:</p> <p>In Unit: Leave trees marked with horizontal orange paint at DBH.</p> <p>In RMZ: Marked to cut with blue paint at DBH and a mark below stump height.</p> <p><u>No cutting or operations inside SMZs.</u></p> <p>Seedtree</p> <p><i>Prescription:</i></p> <ul style="list-style-type: none"> • Retain WL > DF at 6-10 trees per acre (65'-85' spacing), of which 2 must be snags + 2 snag recruits ≥ 21" or the largest diameter class. • Live leave trees should have straight boles and full, green crowns with pointed tops. • Retain all snags >7" DBH when possible. 		
<p>OPERATING PERIOD:</p> <ul style="list-style-type: none"> • June 16 - March 31 when soil conditions and hauling restrictions allow (Section VII.L. & N.). • No log hauling on weekends and holidays unless with prior approval from the Forest Officer. 		
<p>SPECIAL OPERATING REQUIREMENTS:</p> <ol style="list-style-type: none"> 1. NUTRIENT RECYCLING REQUIREMENT 2. SLASHING OF LOGGING-DAMAGED TREES REQUIRED 4. EQUIPMENT RESTRICTION ZONES/STREAMSIDE MANAGEMENT ZONE 5. RIPARIAN MANAGEMENT ZONE 8. SKID TRAIL SPACING 14. LYNX HABITAT PROTECTION 		

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HARVEST UNIT NUMBER(S)	ACRES	ESTIMATED VOLUME (Tons)
6	20	1,679
YARDING METHOD: Combo: Shovel/Tractor.		
<p>MARKING: None except for RMZ/SMZ.</p> <p>In RMZ: Marked to cut with blue paint at DBH and a mark below stump height.</p> <p>Shelterwood.</p> <p>In Unit: <u>Cut by description.</u></p> <ul style="list-style-type: none"> • Retain WL > DF >Whitewoods at 27 trees per acre (40' spacing), of which 2 must be snags + 2 snag recruits ≥ 21" or the largest diameter class. • Leave live trees with straight boles and full crowns with pointed tops: value vigor and form over size. • Retain all snags >7" DBH when possible. <p>If the Forest Officer determines that the desired harvest prescription is not being met by the Purchaser, the Forest Officer may require the Purchaser to sample mark an additional portion of the unit and have that sample marked portion be approved by the Forest Officer. If the Purchaser continues to be unable to meet the harvest prescription requirements the Forest Officer may require marking of the entire unit by the Purchaser and approval of marking by the Forest Officer prior to continuing harvest.</p>		
<p>OPERATING PERIOD:</p> <ul style="list-style-type: none"> • June 16 - March 31, when soil conditions and hauling restrictions allow (Section VII.L.& N.). • No log hauling on weekends and holidays unless with prior approval from the Forest Officer. 		
<p>SPECIAL OPERATING REQUIREMENTS:</p> <ol style="list-style-type: none"> 1. NUTRIENT RECYCLING REQUIREMENT 2. SLASHING OF LOGGING-DAMAGED TREES REQUIRED 4. EQUIPMENT RESTRICTION ZONES/STREAMSIDE MANAGEMENT ZONE 5. RIPARIAN MANAGEMENT ZONE 8. SKID TRAIL SPACING 10. COMBINATION OF SHOVEL AND TRACTOR YARDING 14. LYNX HABITAT PROTECTION 		

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HARVEST UNIT NUMBER(S)	ACRES	ESTIMATED VOLUME (Tons)
7b	83	2,791
YARDING METHOD: Combination: Shovel/Cable/Tractor.		
<p>MARKING: None except for RMZ/SMZ.</p> <p>In RMZ: Marked to cut with blue paint at DBH and a mark below stump height.</p> <p>Shelterwood.</p> <p>In Unit: <u>Cut by description.</u></p> <ul style="list-style-type: none"> • Retain all WWP, then WL > DF > Whitewoods at 22 trees per acre (45' spacing), of which 2 must be snags + 2 snag recruits ≥ 21" or the largest diameter class. • Leave live trees with straight boles and full crowns with pointed tops: value vigor and form over size. • Retain all snags >7" DBH when possible. <p>If the Forest Officer determines that the desired harvest prescription is not being met by the Purchaser, the Forest Officer may require the Purchaser to sample mark an additional portion of the unit and have that sample marked portion be approved by the Forest Officer. If the Purchaser continues to be unable to meet the harvest prescription requirements the Forest Officer may require marking of the entire unit by the Purchaser and approval of marking by the Forest Officer prior to continuing harvest.</p>		
<p>OPERATING PERIODS:</p> <ul style="list-style-type: none"> • June 16 - March 31, when soil conditions and hauling restrictions allow (Section VII.L & N.). • No log hauling on weekends and holidays unless with prior approval from the Forest Officer. • <u>No operations June 16 - August 15 within ¼ mile of Goshawk nest if active.</u> 		
<p>SPECIAL OPERATING REQUIREMENTS:</p> <ol style="list-style-type: none"> 1. NUTRIENT RECYCLING REQUIREMENT 2. SLASHING OF LOGGING-DAMAGED TREES REQUIRED 4. EQUIPMENT RESTRICTION ZONES/STREAMSIDE MANAGEMENT ZONE 6. TEMPORARY SPUR ROAD CONSTRUCTION REQUIRED 7. OPTIONAL TEMPORARY SPUR ROAD OR EXCAVATED SKID TRAIL CONSTRUCTION 8. SKID TRAIL SPACING 9. COMBINATION OF CABLE AND SHOVEL YARDING 10. COMBINATION OF SHOVEL AND TRACTOR YARDING 11. DELETION OF AREAS WITH BLIND LEADS 12. ALTERNATE YARDING SYSTEMS MAY BE APPROVED 14. LYNX HABITAT PROTECTION 18. ACTIVE NORTHERN GOSHAWK NEST 		

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HARVEST UNIT NUMBER(S)	ACRES	ESTIMATED VOLUME (Tons)
8	84	3,433
YARDING METHOD: Combination: Shovel/Cable/Tractor.		
<p>MARKING: None except for RMZ/SMZ.</p> <p>In SMZ/RMZ: Marked to cut with blue paint at DBH and a mark below stump height.</p> <p>Shelterwood.</p> <p>In Unit: <u>Cut by description.</u></p> <ul style="list-style-type: none"> • Retain all WWP and PP, then WL > DF>Whitewoods at 22-27 trees per acre (40'-45' spacing), of which 2 must be snags + 2 snag recruits ≥ 21" or the largest diameter class. • Retain WL for wildlife trees/snag recruits. • Retain all WWP and PP (most located on benches). • Pockets of insect and disease damage will resemble clearcut or seedtree harvest, with removal of dying DF and whitewoods required. • Leave live trees with straight boles and full crowns with pointed tops: value vigor and form over size. <p>If the Forest Officer determines that the desired harvest prescription is not being met by the Purchaser, the Forest Officer may require the Purchaser to sample mark an additional portion of the unit and have that sample marked portion be approved by the Forest Officer. If the Purchaser continues to be unable to meet the harvest prescription requirements the Forest Officer may require marking of the entire unit by the Purchaser and approval of marking by the Forest Officer prior to continuing harvest.</p>		
<p>OPERATING PERIOD:</p> <ul style="list-style-type: none"> • June 16 - March 31, when soil conditions and hauling restrictions allow (Section VII.L & N.). • No log hauling on weekends and holidays unless with prior approval from the Forest Officer. • Lower Whitefish Road must remain open and passable to vehicles on weekends and holidays. • <u>No operations June 16 - August 15 within ¼ mile of Goshawk nest if active.</u> 		
<p>SPECIAL OPERATING REQUIREMENTS:</p> <ol style="list-style-type: none"> 1. NUTRIENT RECYCLING REQUIREMENT 2. SLASHING OF LOGGING-DAMAGED TREES REQUIRED 4. EQUIPMENT RESTRICTION ZONES/STREAMSIDE MANAGEMENT ZONE 5. RIPARIAN MANAGEMENT ZONE 6. TEMPORARY SPUR ROAD CONSTRUCTION REQUIRED 7. OPTIONAL TEMPORARY SPUR ROAD OR EXCAVATED SKID TRAIL CONSTRUCTION 8. SKID TRAIL SPACING 9. COMBINATION OF CABLE AND SHOVEL YARDING 11. DELETION OF AREAS WITH BLIND LEADS 12. ALTERNATE YARDING SYSTEMS MAY BE APPROVED 14. LYNX HABITAT PROTECTION 15. RETENTION OF VEGETATION ALONG OPEN ROAD (Lower Whitefish Rd) 16. ROAD CLOSURE SIGNS AND MANAGEMENT REQUIRED (Lower Whitefish Rd) 18. ACTIVE NORTHERN GOSHAWK NEST 		

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HARVEST UNIT NUMBER(S)	ACRES	ESTIMATED VOLUME (Tons)
9	7	326
YARDING METHOD: Tractor		
<p>MARKING: None.</p> <p>Shelterwood (Cut by description) Operator select leave and cut trees based on the following description:</p> <ul style="list-style-type: none"> • Remove all whitewoods. • Retain all WWP, then WL > DF at 22 trees per acre (45' spacing), of which 2 must be snags + 2 snag recruits ≥ 21" or the largest diameter class per acre. • Live leave trees should have straight boles and full, green crowns with pointed tops. • Retain WL and DF regen as much as practicable. <p>If the Forest Officer determines that the desired harvest prescription is not being met by the Purchaser, the Forest Officer may require the Purchaser to sample mark an additional portion of the unit and have that sample marked portion be approved by the Forest Officer. If the Purchaser continues to be unable to meet the harvest prescription requirements the Forest Officer may require marking of the entire unit by the Purchaser and approval of marking by the Forest Officer prior to continuing harvest.</p>		
<p>OPERATING PERIOD:</p> <ul style="list-style-type: none"> • June 16 - March 31, when soil conditions and hauling restrictions allow (Section VII.L.& N.). • No log hauling on weekends and holidays unless with prior approval from the Forest Officer. 		
<p>SPECIAL OPERATING REQUIREMENTS:</p> <ol style="list-style-type: none"> 1. NUTRIENT RECYCLING REQUIREMENT 2. SLASHING OF LOGGING-DAMAGED TREES REQUIRED 8. SKID TRAIL SPACING 14. LYNX HABITAT PROTECTION 15. RETENTION OF VEGETATION ALONG OPEN ROAD (Taylor Creek Rd) 		

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HARVEST UNIT NUMBER(S)	ACRES	ESTIMATED VOLUME (Tons)
10	14	759
YARDING METHOD: Tractor		
MARKING: None. Shelterwood (Cut by description) Operator select leave and cut trees based on the following description: <ul style="list-style-type: none"> • Retain WL > DF>Whitewoods at 22 trees per acre (45' spacing), of which 2 must be snags + 2 snag recruits ≥ 21" or the largest diameter class. • Leave live trees with straight boles and full crowns with pointed tops: value vigor and form over size. • Retain all snags >7" DBH when possible. 		
OPERATING PERIOD: <ul style="list-style-type: none"> • June 16 - March 31, when soil conditions and hauling restrictions allow (Section VII.L.& N.). • No log hauling on weekends and holidays unless with prior approval from the Forest Officer. • <u>No operations June 16 - August 15 within ¼ mile of Goshawk nest if active.</u> 		
SPECIAL OPERATING REQUIREMENTS: <ol style="list-style-type: none"> 1. NUTRIENT RECYCLING REQUIREMENT 2. SLASHING OF LOGGING-DAMAGED TREES REQUIRED 7. OPTIONAL TEMPORARY SPUR ROAD OR EXCAVATED SKID TRAIL CONSTRUCTION 8. SKID TRAIL SPACING 14. LYNX HABITAT PROTECTION 15. RETENTION OF VEGETATION ALONG OPEN ROAD 16. ROAD CLOSURE SIGNS AND MANAGEMENT REQUIRED 18. ACTIVE NORTHERN GOSHAWK NEST 		

G. SPECIAL OPERATING REQUIREMENTS: The following requirements are to be performed by the Purchaser in specific sale units as shown in Section VII.F, UNIT DESIGNATIONS.

1. NUTRIENT RECYCLING REQUIREMENT: Purchaser is required to leave material in the unit for recycling of forest nutrients. At the same time, logging slash loading shall be kept to a minimum by skidding and piling some slash at the landings.
 - Purchaser is required to leave most logging slash *foliage* scattered on the forest floor. The Forest Officer may require lopping and scattering of limbs, severing tops before skidding, returning tops to the woods, or other methods to achieve this requirement.
 - Purchaser is required to leave **10 to 20 tons** of material per acre, 3 inches in diameter or larger to meet DOWN, WOODY MATERIAL requirements in paragraph VII. C-3. The Forest Officer may require the bucking of cull material in the woods, leaving dead, down sawlogs, or other methods.
 - Purchaser is required to reduce slash loading above the amounts required to meet 1a and 1b above. The Forest Officer may require whole-tree skidding of some material to meet this requirement.

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- The Forest Officer and Purchaser will agree to amounts of material and the bucking, lopping and skidding methods to meet these requirements prior to felling and skidding the unit.
2. **SLASHING OF LOGGING-DAMAGED SUBMERCHANTABLE TREES REQUIRED:** The Purchaser shall fell all submerchantable trees with logging-related root or stem damage, causing lean. The stem shall be completely severed from the stump below the lowest live limb. Maximum stump height shall be 12 inches on the uphill side.
 3. **HIGH HAZARD FUELS REDUCTION AND PILING REQUIRED:** 90% of slash within 100 feet of any residence, and for 100 feet inside any portion of a cutting unit boundary that lies within 1,000 feet of a residential structure must be chipped, piled, buried, or removed within 60 days of its creation.
 4. **EQUIPMENT RESTRICTION ZONES/STREAMSIDE MANAGEMENT ZONE:** Equipment is prohibited from operating in areas designated as equipment restriction or streamside management zones. All trees designated for harvest within such zones shall be winchline skidded to skid trails outside the zone. Designated crossings must be approved by the Forest Officer. Slash will not be piled or pushed into these zones.
 5. **RIPARIAN MANAGEMENT ZONE:** Equipment is allowed to operate within areas designated as riparian management zones, in a straight in/straight out manner, perpendicular to the stream channel. All submerchantable trees and shrubs must be protected as much as practicable. **All trees designated for harvest within such zones will be marked with blue horizontal paint stripe at DBH and butt mark below stump height.**
 6. **TEMPORARY SPUR ROAD CONSTRUCTION REQUIRED:** The Purchaser is required to construct a temporary spur road for access to this unit. The Forest Officer will designate the location of the road. The road must be constructed and reclaimed to specifications in Attachment B.
 7. **OPTIONAL TEMPORARY SPUR ROAD OR EXCAVATED SKID TRAIL CONSTRUCTION:** The Purchaser is permitted to construct a temporary spur road or excavated skid trail to harvest this unit. The Forest Officer will approve the location and length of the road. The road/skid trail must be constructed and reclaimed to specifications in Attachment B.
 8. **SKID TRAIL SPACING:** Skid trails shall be spaced not less than **60** feet apart/between trails except at common landings. Existing excavated skid trails may be utilized if **200** feet apart.
 9. **COMBINATION OF CABLE AND SHOVEL YARDING:** Cable yarding may be required in areas as designated by Forest Officer where shovel yarding is not feasible or would result in excessive resource damage.
 10. **COMBINATION OF SHOVEL AND TRACTOR YARDING:** Shovel yarding may be required in areas of this unit by the Forest Officer where tractor yarding is not feasible or would result in excessive resource damage.
 11. **DELETION OF AREAS WITH BLIND LEADS:** Within skyline yarding area, blind leads identified by the Purchaser and approved by the Forest Officer may be omitted from required harvest within the unit.
 12. **ALTERNATE YARDING SYSTEMS MAY BE APPROVED:** The Forest Officer may approve alternative yarding methods besides those specified for each sale unit. An alternative system proposed by the Purchaser must be approved by the Forest Officer at or before the time the Logging Operations Plan for the unit is approved. The Forest Officer will only approve alternatives that are consistent with planned mitigation and resource protection measures. Alternatives may include tethered equipment or other systems. Costs of alternative systems will be borne by the

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purchaser.

13. LONG DISTANCE GROUND-BASED YARDING OF 1,000-1,500 FEET REQUIRED: Yarding distances of 1,000-1,500 feet may be required in this unit. A combination of methods and equipment may be approved by the Forest Officer.
14. LYNX HABITAT PROTECTION: Retain patches of advanced shade-tolerant regeneration (grand fir, subalpine fir or Engelmann spruce) on up to 10 percent of the stand. Care shall be exercised in felling and skidding operations to minimize damage to patches of sub-merchantable trees. If damage to submerchantable trees is deemed excessive, operations may be suspended by the Forest Officer until suitable arrangements are made to reduce damage.
15. RETENTION OF VEGETATION ALONG OPEN ROAD: Retain all vegetation and submerchantable timber for up to 100 feet between the open road and the harvest unit as directed by the Forest Officer.
16. ROAD CLOSURE SIGNS AND MANAGEMENT REQUIRED: Roads may be temporarily closed for public safety reasons when equipment or logs are expected to block the road only if approved or directed by the Forest Officer. Temporary barricades notifying the public that the road is closed shall be placed within 500 feet of both ends of the closed area during the time of the closure. Barricades shall only be in place when the road is actually closed, and removed when open. Signs stating that the road is closed ahead shall be placed at convenient turnarounds prior to barricades.

Additionally, Purchaser must install signs during the time operations are in progress at the following locations:

- When operating in the southernmost portion of **Unit 1**, above East Lakeshore Drive:

Road signs warning of logging operations shall be posted on East Lakeshore Drive 500 feet west and 1,000 feet east of the junction with East Smith Road. Warning signs must comply with MUTCD specifications (See specifications included in Attachment B).
- When operating in **Unit 3**:

Close West Smith Lake Road to vehicle traffic with sign at the junction with East Lakeshore Drive, sign to reading "Road Closed due to logging operations. Contact Stillwater State Forest for information, 406-881-2371" (sign will be provided by the Forest Officer).
- When operating in **Unit 8** near Lower Whitefish Road, post at two locations:
 1. Where Lower Whitefish Road leaves paved East Lakeshore Drive, sign to read "Road may be closed at \bar{X} -mile marker. Contact Stillwater State Forest for information, 406-881-2371" (sign will be provided by the Forest Officer).
 2. At the intersection of Lower Whitefish Road and Taylor Creek Road, sign to read "Road may be closed at \bar{X} -mile marker. Contact Stillwater State Forest for information, 406-881-2371" (sign will be provided by the Forest Officer).
- When operating in **Unit 9** near Lower Whitefish Road:

Close Taylor Creek Road to vehicle traffic with sign at the junction with Lower Whitefish Road with sign reading "Taylor Creek Road due to logging operations. Contact Stillwater State Forest for information, 406-881-2371" (sign will be provided by the Forest Officer).

17. **OPTIONAL TEMPORARY BRIDGE INSTALLATION AND REMOVAL:** Unit 2 has a Cross-Laminated Timber Bridge (CLT) that is optional to use to skid across at location determined by Forest Officer. CLT bridge decking must be replaced and installed by Purchaser if bridge is used. CLT must be transported to sale and returned to Stillwater Unit boneyard by Purchaser. (Site 14 of permit included in Attachment E.)

18. **ACTIVE NORTHERN GOSHAWK NEST:** The nest is identified on maps included in Attachment A. Retain all trees within 100 feet of the nest tree (marked with pink/black flagging). **An exception to this retention requirement is for the construction of Lower King Bear Spur.**

If the nest is determined to be active, timber operations will be suspended within ¼ mile of the nest June 16 - August 15. This includes all roadwork and hauling on Anchor Creek Road, Hook Spur, 7b Flat Spur, and portions of Lower King Bear Spur, and Bench Spur. **The exception is hauling and maintenance of Lower Whitefish Road may continue within ¼ mile of the nest.**

Any raptor nest discovered during the contract period would be protected with a 100-foot no-cut buffer. See Section VI.D. for further direction on discovery and notification.

H. LOGGING OPERATIONS PLAN: The Forest Officer shall approve a plan for felling, yarding, and landing logs (both Sawlogs and Other Material) in each harvest unit prior to the start of operations in that unit.

I. SKID TRAIL LAYOUT AND YARDING PLAN: The Purchaser must follow these requirements along with those shown under VII.G. SPECIAL OPERATING REQUIREMENTS when developing a yarding plan for each unit. The Forest Officer may approve exceptions to these requirements in writing.

1. The Purchaser shall lay out skid trails and have locations approved by the Forest Officer prior to felling trees.
2. All skid trails will be located within the harvest unit boundaries.
3. Any constructed skid trails shall be completed and approved by the Forest Officer prior to felling timber.
4. Skid trails will not be located in draws, and may only cross draws at locations flagged and approved by the Forest Officer.

J. LANDINGS AND LOG DECKS:

1. The Purchaser shall construct landings at locations approved by the Forest Officer prior to felling timber.
2. Landings shall be kept to the minimum size necessary to allow the safe handling of logs. The Forest Officer must approve landing size.
3. All deck locations shall be approved by the Forest Officer prior to clearing or use. Decks shall be located so as to minimize the number of trees cut for construction of the deck area.

K. FELLING:

1. In each harvest unit, a felling pattern shall be used which conforms to the logging operations plan and causes the least damage to reserve trees and other resources.

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2. Felling shall be systematic and continuous to avoid lost logs and minimize the number of skidding trips.
3. Trees shall be directionally felled away from features requiring protection within or adjacent to harvest units. Features requiring protection include streams, meadows, wet areas, and areas specified under Section VII.F. UNIT DESIGNATIONS. Wedges, jacks, winches, or other special equipment may be required to direct trees when felling. Trees falling into protection areas shall be winch-line skidded out of protected features. All necessary mitigation for damage caused by improper and/or non-approved felling into a protected zone is the responsibility of the Purchaser. The Forest Officer must approve all mitigation work.
4. Traffic Control Required For Felling along Roads: If felling operations occur along public roads, traffic guards with "STOP" signs shall be posted 500 feet in both directions from the units on open roads, providing a safety zone to warn oncoming traffic that logging operations are in progress. All traffic shall be stopped when tree felling is in progress. Traffic stops should not exceed 15 minutes at any one time. All saws will be shut off when traffic is moving through the safety zone. Wedges and/or jacks shall be used to ensure trees do not fall onto the roadway. In the event a tree falls across the roadway, all debris shall be removed immediately from the roadway and right-of-way. The Forest Officer must approve any extended road closures for logging operations.

L. YARDING AND MECHANICAL FELLING: The Purchaser must follow these requirements during logging operations, along with those shown under Section VII.G. SPECIAL OPERATING REQUIREMENTS. The Forest Officer will determine when restrictive conditions apply, and may approve exceptions to these requirements in writing.

1. Soil Compaction Restrictions: In order to prevent soil resource impacts, ground-based mechanical felling and yarding are restricted to periods when one or more of the following conditions occur:
 - a. Soil moisture content at 4-inch depth less than 20% oven-dry weight.
 - b. Minimum frost depth of 4 inches.
 - c. Minimum snow depth of 18 inches, loose, or 12 inches, packed.
2. Suspended Operations for Soil Compaction and Displacement: The Purchaser will be required to restrict or suspend logging operations when soils are subject to compaction or displacement by heavy equipment.
3. Equipment Restrictions:
 - a. Equipment shall not be operated in areas designated as EQUIPMENT RESTRICTION ZONES, WETLAND MANAGEMENT ZONES or STREAMSIDE MANAGEMENT ZONES as shown in Section VII.D.6 and 7, unless authorized by this Contract or the Forest Officer.
 - b. Equipment shall not be operated in soft soils, boggy areas or areas where skidding would cause excessive compaction and displacement.
 - c. Any trees designated for harvest within such zones shall be winchline skidded to skid trails outside the zone.
 - d. Slash will not be piled in or pushed into these zones.
 - e. The Forest Officer must approve any designated crossings of restricted areas.
4. Protection of Reserved Trees: The Purchaser shall exercise reasonable care to prevent damage to trees reserved from cutting during logging operations.

M. CLEAN-UP AND COMPLETION: The Purchaser must follow these requirements and those shown under Section VII.G. SPECIAL OPERATING REQUIREMENTS during logging operations. The Forest Officer will determine when restrictive conditions apply, specifications and dates to meet these requirements and may approve exceptions in writing. The Forest Officer must approve all designated work prior to the removal of Purchaser's equipment.

1. Logging Debris Confined To Units: All debris from logging shall be confined within the harvest unit boundaries. Any logging debris outside a harvest unit must be returned to within the unit boundary.
2. Skidding Debris on Roads: The Purchaser shall remove logging slash remaining on any portion of a road cutbank or traveled way. Cut and fill slopes, ditches, or road surfaces damaged by skidding operations shall be restored to original conditions. Reseeding is required if vegetation is damaged by skidding.
3. Repair of Improvements: Damage caused by the Purchaser's operations to culverts, waterlines, fences, roads, bridges, gates, cattleguards, signs, and all other improvements must be adequately repaired or replaced.
4. Erosion Control:
 - a. The Purchaser shall construct slash and debris erosion barriers, dips, water bars or ditches in skid trails and landings as directed by the Forest Officer.
 - b. The kinds and frequency of erosion control structures shall be adjusted to soil types, topography and climatic conditions as directed by the Forest Officer.
 - c. The Purchaser is required to recontour any excavated skid trails, and provide for effective erosion control in the trail location as directed by the Forest Officer.
 - d. Erosion control work shall commence as soon as skidding is completed on each skid trail or landing, and must be kept current with unit operations.
 - e. Erosion control work shall be completed and approved by the Forest Officer in unfinished units before operations cease for inactive periods including heavy winter snowfall, spring breakup and restricted dates.
 - f. All erosion control work in each unit shall be completed prior to notification pursuant to Section VII.M.7. Acceptance of Completed Harvest Units.
 - g. The Purchaser shall maintain erosion control structures in active sale areas throughout the contract period or extensions thereof.
5. Landing and Decking Area Cleanup: The Purchaser is required to pile logging residues on landings and log-decking areas. Proper equipment (e.g. brush blade, log loader) shall be used to ensure that no dirt is incorporated into the piles. Mechanical scarification of landing and decking areas may be required. Where logs have been decked on the downhill or fill side of a road, the Purchaser may be required to pile residue with a log loader or by hand. Residue piles shall be a minimum of 15 feet away from any live trees. Piles shall be located and constructed as directed by the Forest Officer.
6. Systematic Harvest Unit Operations: When harvest operations are begun on a designated harvest unit, the harvest operations on that unit shall be fully completed before cutting may begin on other harvest units.
7. Acceptance of Completed Harvest Units: The Forest Officer will notify the Purchaser in writing when all contract requirements for each specified harvest unit or area have been met. After notice has been received, the Purchaser is not required to do additional work on the specified area

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except as provided in Section VII.A.4. FIRE KILL, INSECT INFESTATION, AND WIND THROWN.

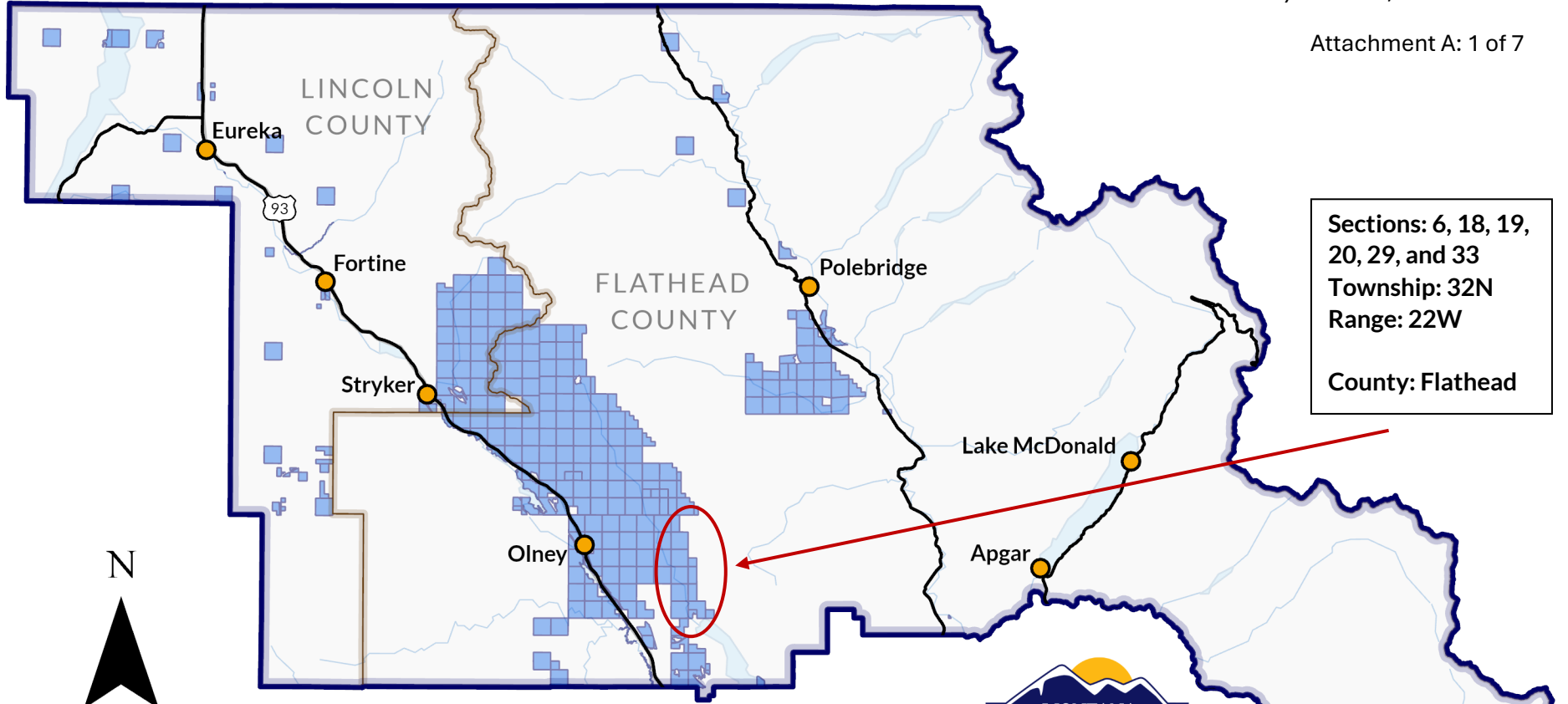
- N. HAULING RESTRICTIONS:** The Purchaser will be required to restrict or suspend hauling during periods when the compacted road surface would be damaged, as directed by the Forest Officer. Restrictions are required when hauling would cause rutting into the subgrade, or surfacing materials would be displaced, such as during heavy rainfall or spring breakup freezing and thawing cycles
- O. LOGGING OPERATIONS SAFETY SIGNS:** Road signs warning of logging and road construction operations shall be posted 500 feet from the operations. When log hauling is in progress, warning signs shall be posted at major road junctions as directed by the Forest Officer. Warning signs must comply with specifications in the Manual on Uniform Traffic Control Devices.

State Trust Land Vicinity Map

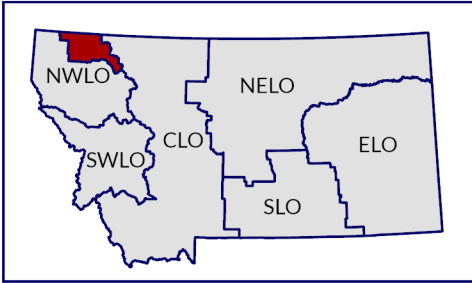
Stillwater Unit

Taylor to Swift Timber Sale

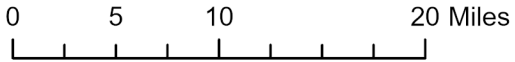
Attachment A: 1 of 7



Sections: 6, 18, 19,
20, 29, and 33
Township: 32N
Range: 22W
County: Flathead



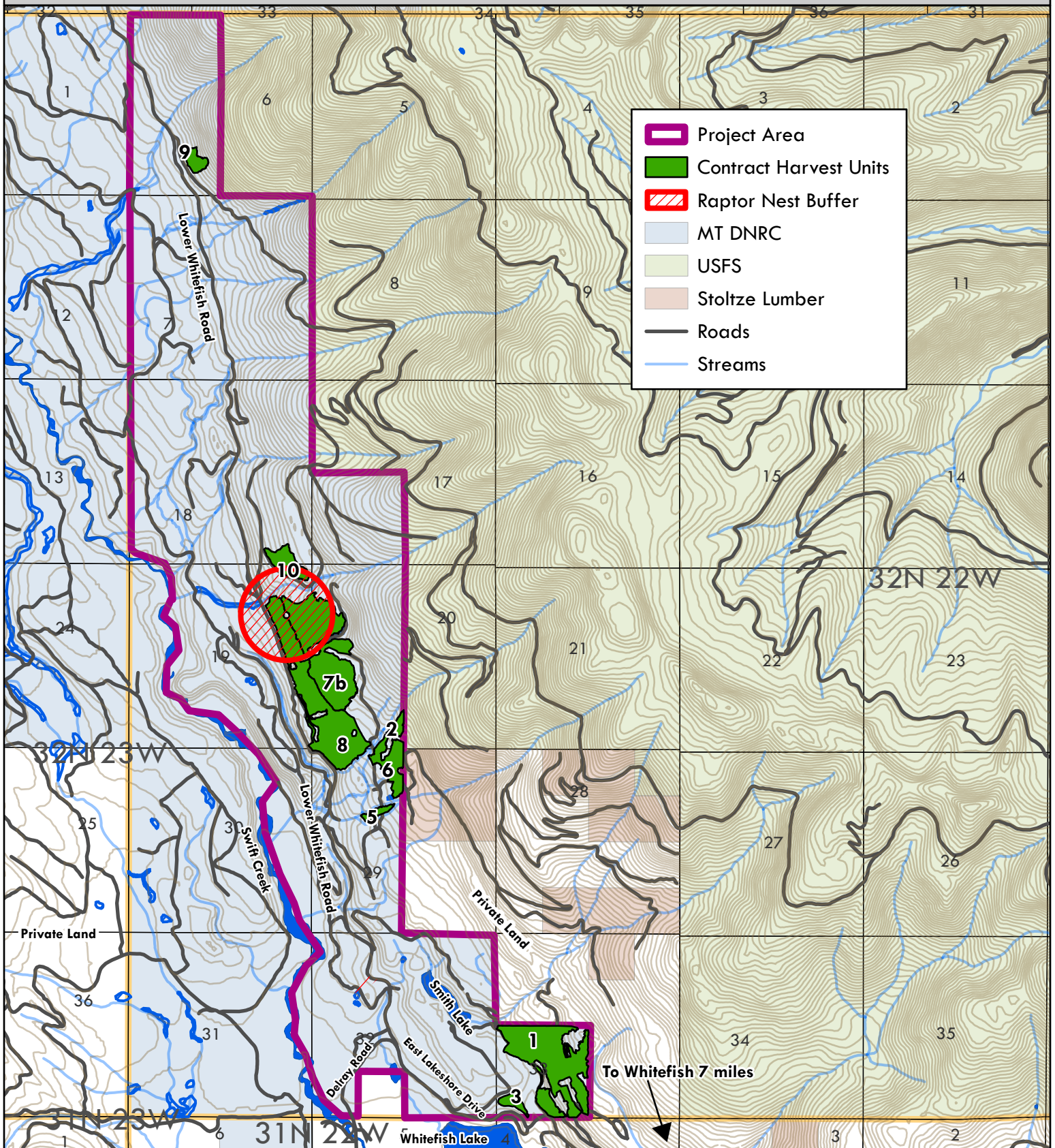
- Towns
- County Lines
- Major Roads
- Rivers & Lakes
- State Trust Land



Taylor to Swift Timber Sale Project Map

T32N R22W Sections 6, 7, 17-20, 29-33

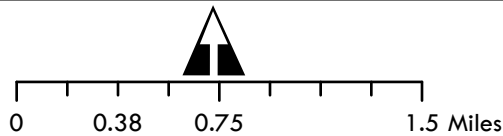
Attachment A: 2 of 7



- Project Area
- Contract Harvest Units
- Raptor Nest Buffer
- MT DNRC
- USFS
- Stoltze Lumber
- Roads
- Streams



December 3, 2025

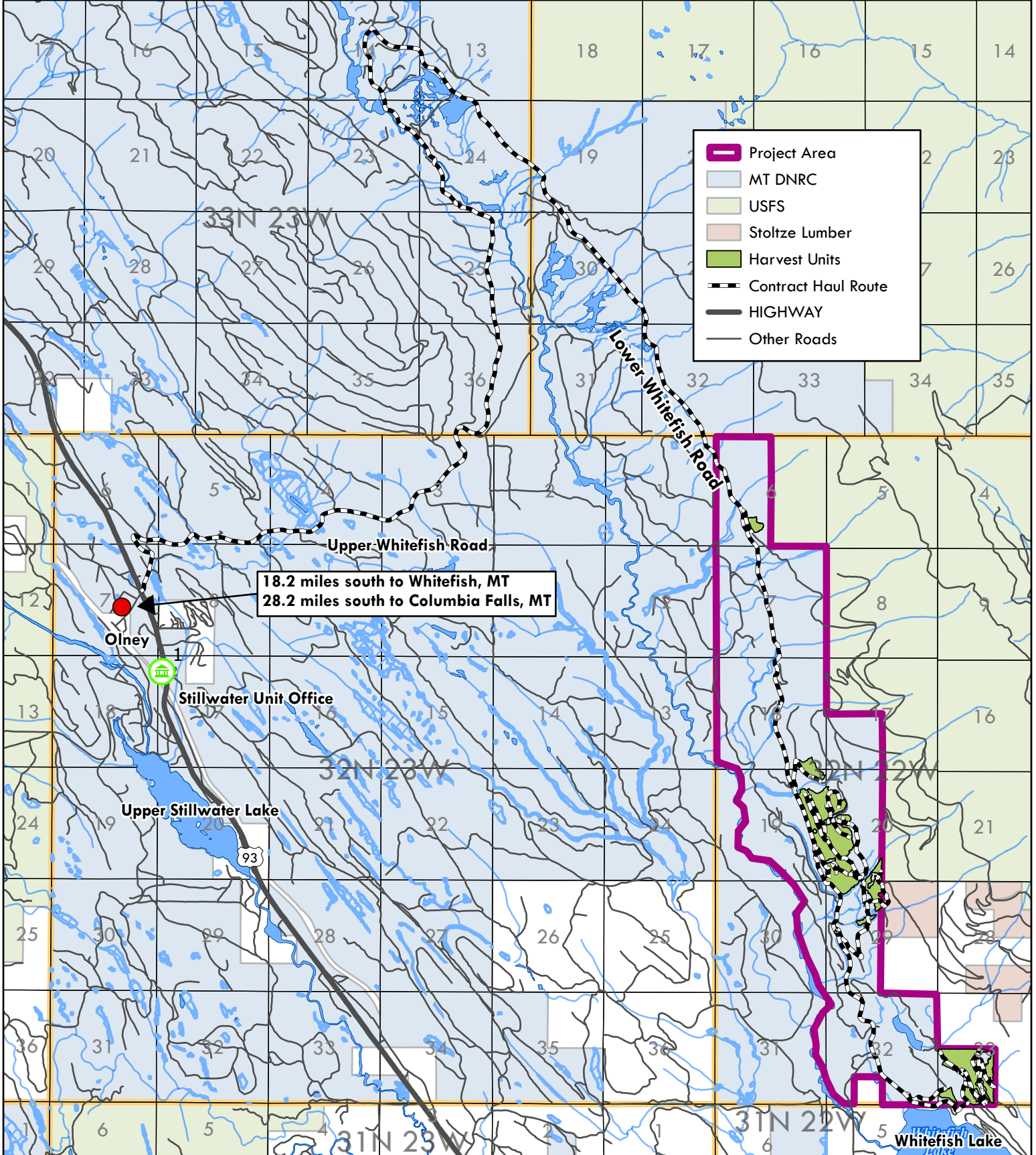


Les H. Thomas



Taylor to Swift Timber Sale Haul Route Map

T32N R22W Sections 19, 20, 29, 30, 31, 32 & 33

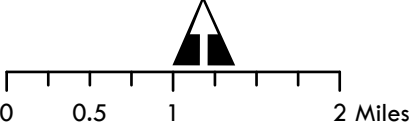


18.2 miles south to Whitefish, MT
28.2 miles south to Columbia Falls, MT

- Project Area
- MT DNRC
- USFS
- Stoltze Lumber
- Harvest Units
- Contract Haul Route
- HIGHWAY
- Other Roads



December 11, 2025



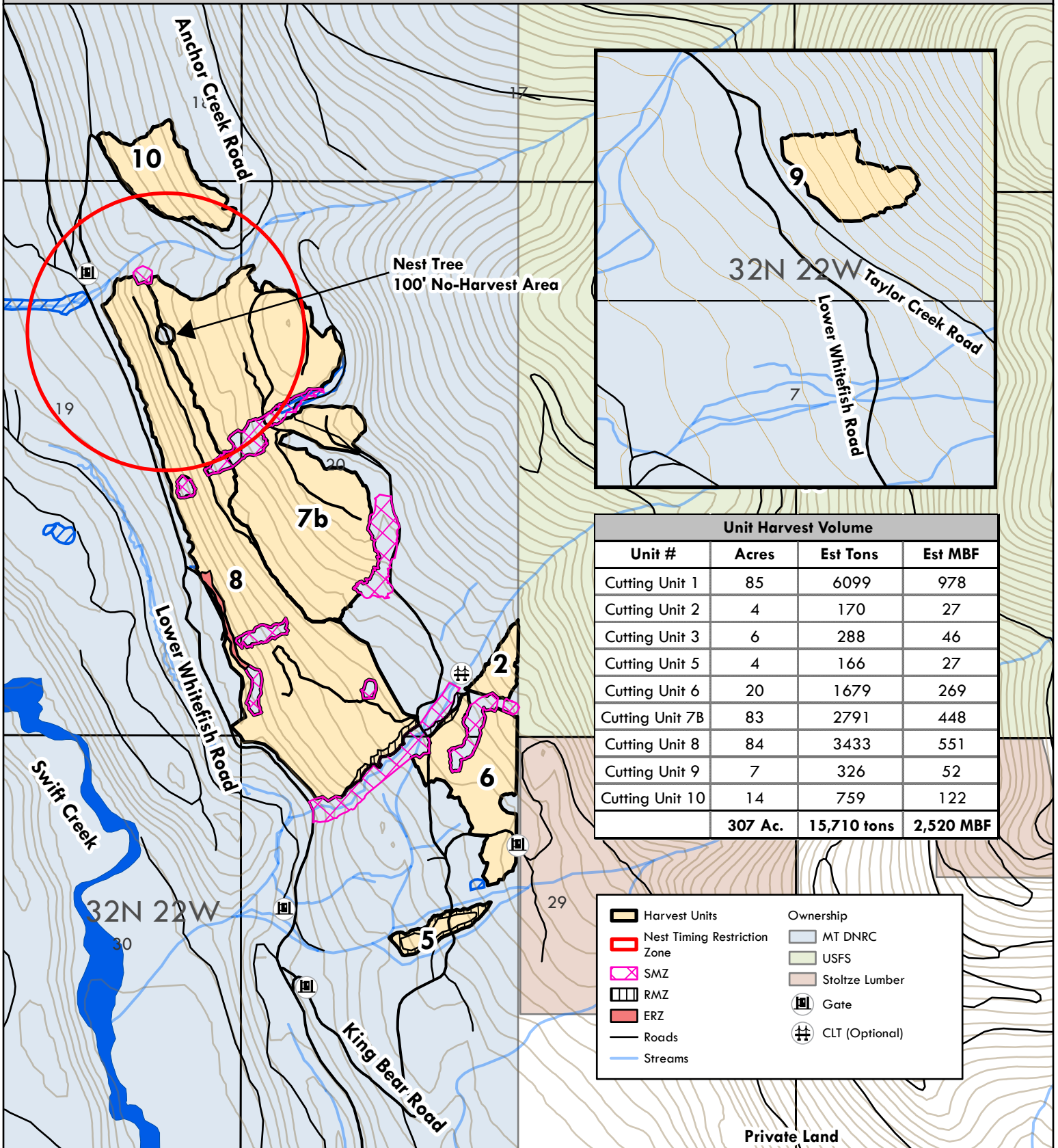
Les H. Thomas



Taylor to Swift Timber Sale Harvest Units 5-10 Map

Sections 6, 7, 17-20, 29, 30
T32N R22W

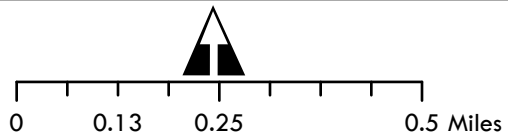
Attachment A: 4 of 7



Unit Harvest Volume			
Unit #	Acres	Est Tons	Est MBF
Cutting Unit 1	85	6099	978
Cutting Unit 2	4	170	27
Cutting Unit 3	6	288	46
Cutting Unit 5	4	166	27
Cutting Unit 6	20	1679	269
Cutting Unit 7B	83	2791	448
Cutting Unit 8	84	3433	551
Cutting Unit 9	7	326	52
Cutting Unit 10	14	759	122
	307 Ac.	15,710 tons	2,520 MBF



December 8, 2025



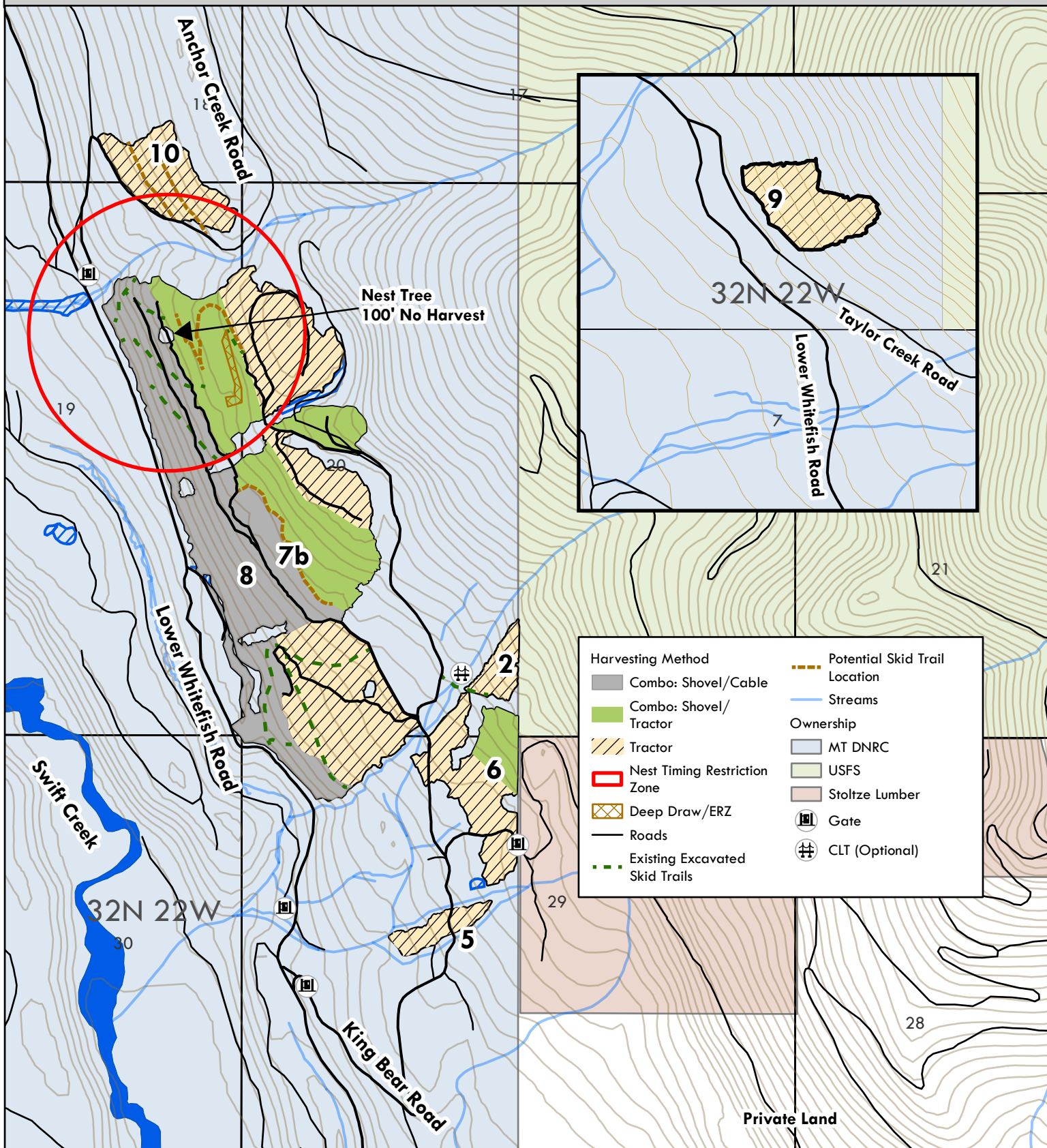
Les H. Thomas



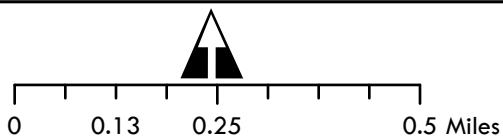
Taylor to Swift Timber Sale Harvest Method Map for Units 5-10

Sections 6, 7, 17-20, 29, 30
T32N R22W

Attachment A: 5 of 7



March 24, 2026



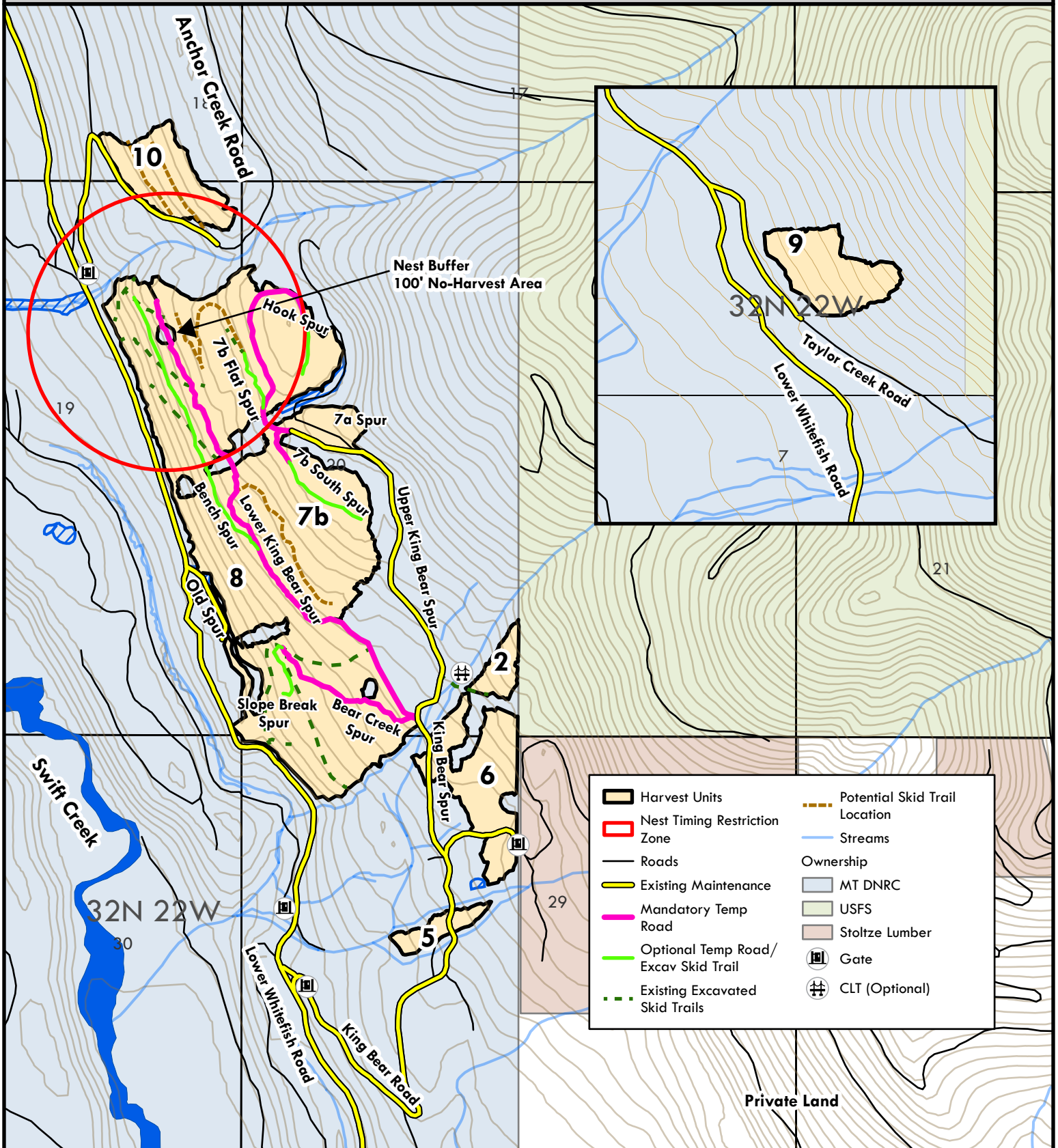
Les H. Thomas



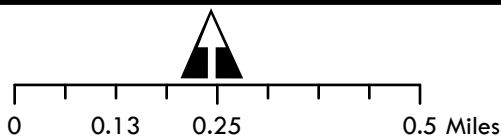
Taylor to Swift Timber Sale Road Maintenance Map for Units 5-10

Sections 6, 7, 17-20, 29, 30
T32N R22W

Attachment A: 6 of 7



December 8, 2025



Les H. Thomas



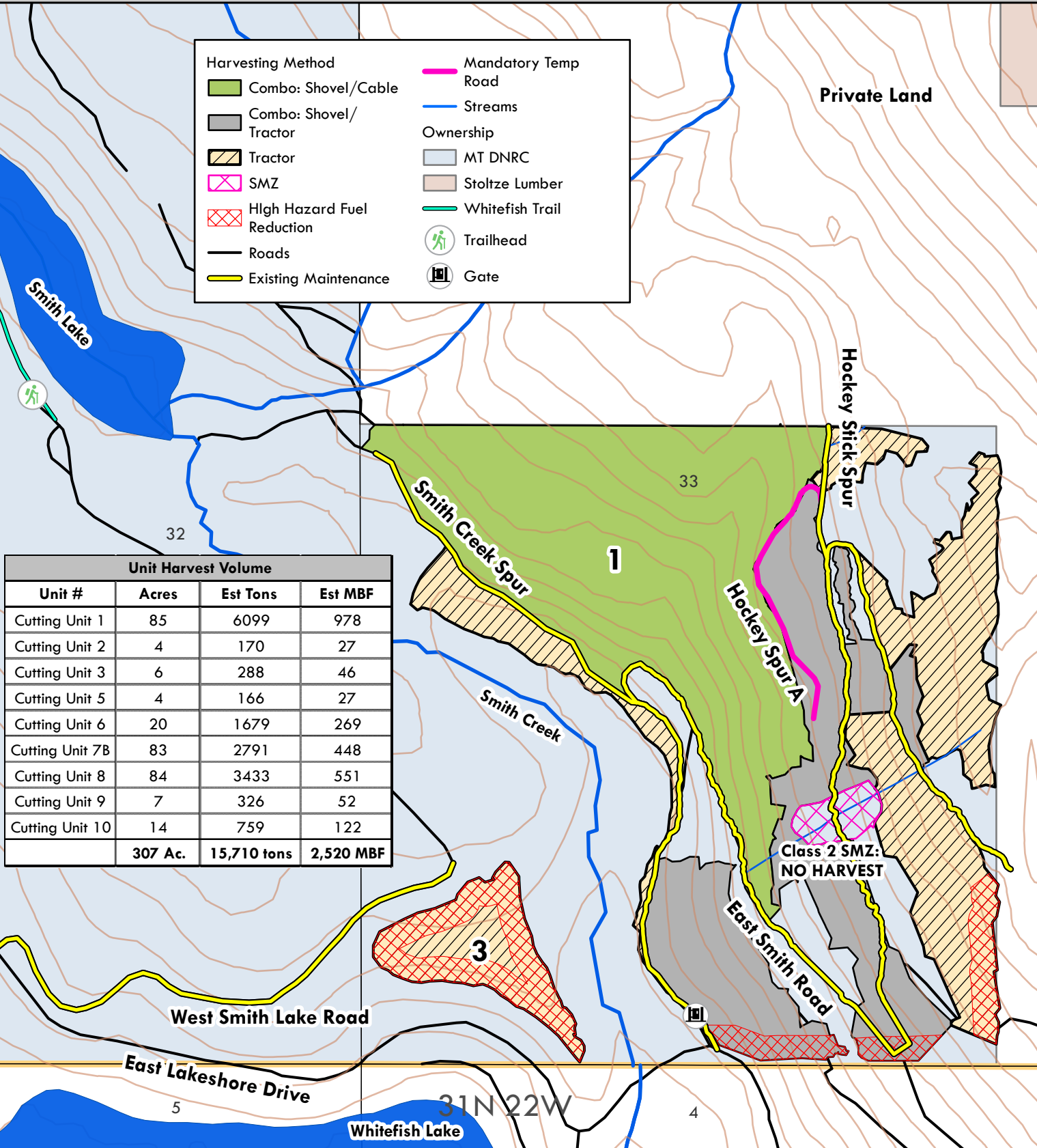
Taylor to Swift Timber Sale

Harvest Unit, Method & Road Maintenance Map for Units 1 & 3

Sections 32, 33
T32N R22W

Attachment A: 7 of 7

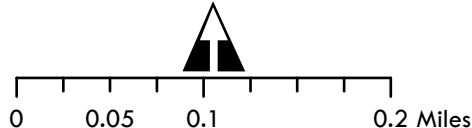
Harvesting Method		Mandatory Temp Road
	Combo: Shovel/Cable	
	Combo: Shovel/Tractor	
	Tractor	Ownership
	SMZ	
	High Hazard Fuel Reduction	
	Roads	
	Existing Maintenance	



Unit Harvest Volume			
Unit #	Acres	Est Tons	Est MBF
Cutting Unit 1	85	6099	978
Cutting Unit 2	4	170	27
Cutting Unit 3	6	288	46
Cutting Unit 5	4	166	27
Cutting Unit 6	20	1679	269
Cutting Unit 7B	83	2791	448
Cutting Unit 8	84	3433	551
Cutting Unit 9	7	326	52
Cutting Unit 10	14	759	122
	307 Ac.	15,710 tons	2,520 MBF



March 24, 2026



Les H. Thomas



**STATE OF MONTANA
TIMBER SALE CONTRACT
ATTACHMENT B**

ROAD CONSTRUCTION, IMPROVEMENT AND MAINTENANCE SPECIFICATIONS	
SALE NAME Taylor to Swift Timber Sale	SALE NUMBER

I. CONSTRUCTION REQUIREMENTS

- A. ROADS:** The Purchaser is required to construct the roads shown in Table B-1 per the schedules stated, as shown on the Sale Map, Attachment A, and to the specifications and drawings in Attachment B and other applicable attachments.

TABLE B-1. ROAD CONSTRUCTION REQUIREMENTS						
Accessing unit(s)	Road Name or Number	Approx. Length (miles)	Type of Construction	Operation Period	Completion Date or Requirement	
Main Haul Route	Lower Whitefish Road	11.3	Maintenance	When conditions allow for shaping and compaction as determined by the Forest Officer.	Initial road maintenance & construction: Prior to use. Includes 5 crossings with instream work limited to between July 15 and August 31. Final road maintenance: October 31, 2030	
	Upper Whitefish Road	9.0	Maintenance		Initial road maintenance & construction: Prior to use. Final road maintenance: October 31, 2030	
	5, 6, 2, 7b, 8	King Bear Road	1.1		Maintenance	Initial road maintenance & construction: Prior to use. Final road maintenance: October 31, 2030
	6, 2, 7b, 8	King Bear Spur	0.3		Maintenance	
2	Temporary Bridge for skid trail access to Unit 2 (optional)	NA	New Temporary Construction (optional)	June 16 – March 31 , and when conditions allow for shaping and compaction as determined by the Forest Officer.	Includes installation of temporary CLT bridge with instream work limited to between July 15 and August 31. Removal immediately following use and not seasonally restricted.	

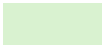
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
Optional roadwork 	Operations timing restriction 	Instream work timing restriction
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TABLE B-1. ROAD CONSTRUCTION REQUIREMENTS

	Road Name or Number	Approx. Length (miles)	Type of Construction	Operation Period	Completion Date or Requirement
7b	Upper King Bear Spur	0.7	Maintenance	June 16 – March 31 , and when conditions allow for shaping and compaction as determined by the Forest Officer.	Initial road maintenance & construction: Prior to use. Includes 2 stream crossings with instream work limited to between July 15 and August 31. Final road maintenance: October 31, 2030
	7b South Spur	0.1	New Temporary Construction		Initial road maintenance & construction: Prior to use. Temporary trail reclamation & final road maintenance: October 31, 2030
	7b South Spur Extension (optional)	0.2	New Temporary Construction (optional)		
	7a Spur	0.1	New Permanent Construction		
	7b Flat Spur (optional)	0.1	New Temporary Construction (optional)	June 16 – March 31 , any when conditions allow for shaping and compaction as determined by the Forest Officer.	Initial road maintenance & construction: Prior to use. Includes 1 stream crossing with instream work limited to between July 15 and August 31. Final road maintenance: October 31, 2030
	Hook Spur	0.4	New Temporary Construction	<u>No operations within in ¼-mile of Goshawk nest June 16 - August 15 if active.</u>	
	Hook Spur Extension (optional)	0.1	New Temporary Construction (optional)	Initial road maintenance & construction: Prior to use. Temporary trail reclamation or final road maintenance: October 31, 2030	

Key:

Optional roadwork 

Operations timing restriction 


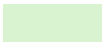
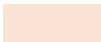
Instream work timing restriction 


TABLE B-1. ROAD CONSTRUCTION REQUIREMENTS

	Road Name or Number	Approx. Length (miles)	Type of Construction	Operation Period	Completion Date or Requirement
8	Bear Creek Spur	0.3	New Temporary Construction	June 16 – March 31 , any when conditions allow for shaping and compaction as determined by the Forest Officer.	Initial road maintenance & construction: Prior to use. Temporary trail reclamation & final road maintenance: October 31, 2030
	Slope Break Spur (optional)	0.1	New Temporary Construction (optional)		
	Old Spur	0.2	Maintenance		
	Lower King Bear Spur	1.0	New Temporary Construction	June 16 – March 31 , any when conditions allow for shaping and compaction as determined by the Forest Officer.	Initial road maintenance & construction: Prior to use. Includes installation of 3 rocked dip/fords where site conditions must be dry for construction. Final road maintenance: October 31, 2030
	Bench Spur (optional)	0.5	New Temporary Construction (optional)	No operations within in ¼-mile of Goshawk nest June 16 - August 15 if active.	Initial road maintenance & construction: Prior to use. Includes installation of 2 rocked dip/fords where site conditions must be dry for construction. Temporary trail reclamation or final road maintenance: October 31, 2030
10	Anchor Creek Road	0.6	Maintenance		
1 & 3	East Smith Road	1.9	Maintenance	June 16 – March 31 , any when conditions allow for shaping and compaction as determined by the Forest Officer.	Initial road maintenance & construction: Prior to use. Temporary trail reclamation & final road maintenance: October 31, 2030
	Smith Creek Spur	0.3	Maintenance		
	Hockey Stick Spur	0.1	Maintenance		
	Hockey Spur A	0.2	New Temporary Construction		
	West Smith Lake Road	0.5	Maintenance	When conditions allow for shaping and compaction as determined by the Forest Officer.	
Unit 9	Taylor Creek Road	0.2	Maintenance		

Key:

Optional roadwork 

Operations timing restriction 

Instream work timing restriction 

B. ROAD CONSTRUCTION MATERIALS ESTIMATE:

TABLE B-2: MATERIALS FURNISHED AND INSTALLED BY THE PURCHASER:					
The Purchaser is required to furnish the described material and install as required in Attachment B. Quantities are estimated, and the Attachment B requirements and specifications must be met regardless of the estimated amounts. All materials furnished by the Purchaser become the property of the State when installed. If, due to a minor design change, material is not installed, the material will be delivered to the nearest DNRC Unit Office and become property of the State upon delivery.					
Corrugated Metal Pipe				Other Materials	
No.	Diameter	Length	Gauge	Amount	Description
1	18	26		4	18" CMP bands
1	18	24		8	24" CMP bands
2	18	34		1	60" CMP band
1	24	30	16	13	18' rubber water diverters (flappers)
3	24	34		2	20' rubber water diverters (flappers)
1	24	35		1	24' rubber water diverters (flappers)
3	24	40			32' concrete open top culvert (See attached Specification)
1	60	40	12	←	The 60" x 40'L CMP must include baffles as specified at Station 6.66 on Lower Whitefish Road.
Fill Material					
Yards	Type			Delivery Location	
N/A	N/A			N/A	

TABLE B-2 (CONTINUED): SEED AND FERTILIZER REQUIREMENTS			
The Purchaser is required to furnish and apply certified noxious weed-free, pure live seed mixture(s) and fertilizer in the amounts shown. Total pounds mixed seed are pure live seed, corrected for germination and purity. Germination and purity tests must have been conducted within the last 12 months prior to delivery. Purchaser shall furnish documentation of germination and purity tests to the Forest Officer prior to application.			
Certified Noxious Weed-Free Seed		Fertilizer	
Pounds	Description	Pounds	Analysis (N-P-K)
39 Required <u>5 Optional</u> 44 Total	Quick cover grass seed	N/A	N/A
250 Required <u>66 Optional</u> 316 Total	Stillwater Blend 20% Annual Ryegrass 15% Slender Wheatgrass 25% Mountain Brome 15% Canada Bluegrass (Ruebens) 25% Hard Fescue (Durar)		

TABLE B-2 (Continued): MATERIALS FURNISHED BY THE STATE:			
The Purchaser is required to load and haul the described materials from the Stillwater Unit Office yard (in Olney, MT) and install them as required in Attachment B.			
Amount	Description		
1	20-foot 9-ply CLT bridge, abutments, and angle iron (see Optional Temporary Bridge in Road Log for details). If used, the bridge must be returned to the Stillwater Unit Office in Olney after harvest of Unit 2.		
2	Wood wattles		
Fill Material			
Yards	Type	Source Location	Delivery Location
162	¾" crushed gravel (Required)	Chicken Pit	See Road Log for specific sites
15	¾" crushed gravel (Optional)		
289	Talus (Required)	West Fork	
4	Talus (Optional)		

C. MINOR CHANGES: The Forest Officer may require minor changes in location, design or specifications of road construction, improvement or maintenance requirements. Such changes must be within the scope of Attachment B requirements and must not result in a significant (one thousand dollars [\$1,000.00] or greater) increase or decrease in cost as agreed to by the Forest Officer and the Purchaser.

D. ADJUSTMENT FOR CHANGE IN REQUIREMENTS: If the State requests a change in road construction, improvement or maintenance specifications and the State in its discretion determines that the change would significantly increase the cost to the Purchaser, then the State must compensate the Purchaser. If the Purchaser requests a change in road construction, improvement or maintenance specifications and the State in its discretion determines that the change is acceptable and would significantly reduce the cost to the Purchaser, then the Purchaser must compensate the State. Compensation to the Purchaser will be in the form of stumpage credit. Compensation to the State will be in cash and will be billed as a supplement to the stumpage bill. All significant changes and compensation will be described in a contract modification.

II. RIGHT-OF-WAY CLEARING

A. CLEAR LIMIT DEFINITIONS are shown in Section IX. SPECIFICATIONS AND DRAWINGS.

B. CLEAR LIMIT MARKING:

1. Clear limits for existing roads are marked not marked
2. Clear limits for all new construction are marked with no paint dots facing into the road right-of-way.

C. CLEARING REQUIREMENTS:

1. Brush or trees on existing roads may be removed by sawing individual stems, cutting with a rotary brush cutter, uprooting with an excavator or other methods approved by the Forest Officer.

2. Inside the clear limits, but outside the road prism, trees and brush less than 20 feet tall and less than 3 inches in diameter that do not interfere with visibility or slope stability may be left as directed by the Forest Officer.
3. All merchantable timber within the clear limits on all roads to be constructed under the terms of this Contract shall be cut to the specifications in the timber sale contract and skidded to decks, or decked with an excavator, prior to earth moving.
4. Clearing procedures shall protect residual stands, prevent incorporation of construction slash into the road prism, and protect roadside appearance outside clear limits.
5. Grubbing will be limited to only those stumps and large roots within the road prism.

III. TREATMENT OF RIGHT-OF-WAY CLEARING MATERIALS

A. GENERAL TREATMENT REQUIREMENTS:

1. Road construction slash more than 3 inches in diameter and 6 feet long and all concentrations of slash which would adversely affect the stability of the road shall be disposed of by the methods described in this section.
2. Slash and debris shall not be placed in drainages, roadside ditches or heads of culverts where the flow of water may be obstructed and shall be removed if placed therein.
3. Lopping and scattering is defined as delimiting and sawing slash materials into lengths which will easily scatter to a maximum depth of 18 inches. Materials shall be scattered outside the road prism.
4. All slash to be disposed of by piling and burning shall be piled in burn bays at locations approved by the Forest Officer. Construction of piles will be of such size and at a sufficient distance from trees so that burning does not result in unnecessary damage to remaining trees. The Purchaser may be required to remove any trees damaged by burning operations at current contract rates. If burning is incomplete the residue must be disposed of as directed by the Forest Officer.

B. SIDESLOPES OF 35% OR LESS AND EXISTING ROADS:

1. Disposal will be by hand or machine piling for burning as directed by the Forest Officer.
2. Minor concentrations of slash or individual trees may be disposed of outside of the road prism by lopping and scattering as directed by the Forest Officer.
3. Tree stumps, large boulders and cull logs may be scattered outside the road right-of-way clear limits if approved in writing by the Forest Officer. Scattered stumps and boulders shall be placed away from trees and positioned so they will not roll.

C. SIDESLOPES OF 35% AND GREATER:

1. Treatment will be by excavator only, or by whole tree skidding to a decking area.
2. Where topography and timber types permit, piling for burning will be required as directed by the Forest Officer.
3. Where piling is not practical, treatment will be by windrowing at the toe of the fill. Slash will be windrowed on a trail constructed at the bottom of the right-of-way. Slash will be trampled and covered with organic surface material taken from the road prism as directed by the Forest Officer. Fill material may butt up against but not cover or bury the windrow.

4. Minor concentrations of slash or individual trees may be disposed of by lopping and scattering as directed by the Forest Officer.
5. Tree stumps, large boulders and cull logs may be scattered outside the road right-of-way clear limits if approved in writing by the Forest Officer. Scattered stumps and boulders shall be placed away from trees and positioned so they will not roll.

IV. EXCAVATION AND EMBANKMENT OF FILL MATERIALS

A. EXCAVATION OF ROAD CROSS SECTION:

1. All grubbing and clearing shall be completed prior to the beginning of any excavation.
2. Surface organic layer and ash cap (surface reddish-brown soils with low gravel content) will be bladed to the side of the road and not incorporated into fills.
3. Wasted soils and organic layer will be shaped and spread to natural contours at locations approved by the Forest Officer.
4. When excavating on tangents and when balanced section construction is indicated, the following table will be used as a guideline to determine if sufficient excavation of road solid has occurred. Tolerances for road solid will be +1.0 feet and -0.5 feet.

TABLE B-3: EXCAVATION OF ROAD SOLID			
SIDESLOPE PERCENT	ROAD WIDTH		
	12 FT.	14 FT.	16 FT.
	FEET OF ROAD SOLID		
5	8.7	10.1	11.4
10	8.8	10.2	11.5
15	8.9	10.2	11.6
20	8.3	9.5	10.8
25	7.8	8.9	10.1
30	7.6	8.9	10.1
35	7.8	9.0	10.2
40	8.1	9.2	10.6
45	8.5	9.4	11.0
50	8.8	9.8	11.6
55	9.4	10.2	12.2
60	10.1	11.7	13.3
65 & over	12.0	14.0	16.0

B. EMBANKMENT OF FILL MATERIALS:

1. Fill materials shall be unfrozen and free of snow and ice.
2. Fill materials shall be sorted to remove large rocks over 6 inches in diameter near the surface, which may interfere with surface blading.
3. Where possible all fill materials shall be applied in layers not to exceed 18 inches and each layer compacted with heavy equipment prior to application of the next layer.
4. If fill materials are too dry to allow compaction, the Forest Officer may require watering of layers

followed by heavy equipment compaction.

5. Gravel used for surfacing shall be compacted into place using loaded dump trucks or a vibratory drum roller if specified in the Road Log.

C. PIT DEVELOPMENT AND RECLAMATION:

1. While the gravel pit or borrow area is open the surface of the pit shall be kept clean of noxious weeds. The Purchaser shall remove any weeds found growing at the pit by pulling, cultivating, covering with plastic, spraying, or other methods as directed by the Forest Officer.
2. At completion of use, the pit area will be reshaped to as near natural contours as possible. Backslope ratios shall not exceed 3:1. Purchaser may be required to save topsoil, recontour the pit wall, and reclaim the disturbed portion of pit. All disturbed portions of the pit shall be grass seeded and fertilized.
3. At completion of use, talus slopes shall be backsloped and reshaped as directed by the Forest Officer. Grass seeding and fertilizing are required on any disturbed areas with exposed soil.

V. DRAINAGE STRUCTURES

A. CORRUGATED METAL PIPE: The corrugated metal pipe required in Table B-2 will be installed as follows:

1. All pipes shall be installed with a backhoe or excavator. The exact locations shall be determined and approved by the Forest Officer after the right-of-way is brushed and cleared.
2. The excavation trench for culvert installation shall not be wider than necessary to permit satisfactory jointing and thorough tamping of the bedding material under and around the pipe.
3. The bedding surface shall be constructed to provide a firm foundation of uniform density through the entire length of the culvert and shall be slightly cambered along the centerline to correct for expected settlement.
4. Where the bedding surface is not firm at the grade established, all unstable soil under the pipe and for a width of at least one diameter on each side of the pipe shall be removed and replaced with suitable selected material. Rock encountered in the bedding foundation will be removed to at least 12 inches below the bottom of the pipe and one diameter on each side. The final bedding area shall consist of fine, compacted granular material.
5. Selected material shall be placed alongside the pipe for backfill in alternating layers not exceeding six inches in depth and thoroughly compacted by a hand held mechanical tamper (wacker packer). Special care must be taken to compact the fill thoroughly under the haunches of the pipe. Wacker packer compaction of backfill must be done for a horizontal distance on each side of the pipe equal to either one pipe diameter or to the outside limits of the trench, whichever is less. The depth of wacker packer compaction must extend at least to the top of the pipe.
6. Selected native fill material will be free from rocks and hard earth clods larger than 3 inches in size. Frozen material, sod or a high percentage of organic matter is not permitted.
7. The remainder of the fill above the top of the pipe may be compacted by tractor or rubber-tired roller. Fill is to extend above each pipe at least one-half the pipe diameter or a minimum of 12 inches, whichever is greater.
8. The pipe shall be protected by adequate fill cover before heavy equipment is permitted to cross during roadway construction.

9. Pipe that is damaged or improperly installed shall be repaired or replaced at Purchaser expense as directed by the Forest Officer.
10. The Forest Officer must be contacted two days before any culvert installation and must be present at any wet site culvert installation.
11. Riprap consisting of angular native rock of graded sizes 6 to 12 inches in diameter shall be installed to armor cuts and fills at both ends of all culverts installed in streams.
12. Energy dissipators consisting of native rock at least 24 inches in diameter with flat cross section shall be installed below culvert outlets in all perennial streams.

B. WET SITE CULVERT INSTALLATION REQUIREMENTS:

1. The Forest Officer and the Purchaser shall agree upon a site specific sediment and erosion control plan that meets the requirements of all attachments and permits for each wet installation prior to any construction. Sediment and erosion control features may include any or all of the following at each site:
 - a. Filter Fabric Sediment Traps.
 - b. Sediment Control Fence.
 - c. Slash Filter Windrows.
 - d. Other measures as directed by Forest Officer.
2. The Forest Officer and the Purchaser shall agree upon a site specific water diversion plan for each wet installation. Diversions may include: by-pass ditches, plastic lined by-pass ditches, plastic or metal pipe by-passes or other methods as directed by the Forest Officer. Pumping with discharge back into the channel is not permitted.
3. All wet site culvert installations require seeding of all disturbed areas with Quick Cover Mix the same day as installation is completed.
4. Any equipment operated within the high-water level of any stream or river channel shall be free of oil and fluid leaks and shall be clean of mud. Said equipment must be inspected by the Forest Officer and approved prior to any use.
5. Filter fabric sediment traps shall be installed prior to any construction activities on all wet culvert installations.

VI. ROAD MAINTENANCE

A. ROAD MAINTENANCE SCHEDULE AND REQUIREMENTS:

1. Road maintenance may be required on all native material or gravel roads designated for hauling purposes.
2. Road maintenance is defined to include all operations listed under Section VI. of Attachment B.
3. Initial maintenance of the roads shall be completed prior to use for logging and hauling.
4. The Forest Officer will determine the number, type, extent and frequency of intermediate maintenance operations. Road maintenance shall be repeated as needed to facilitate traffic and proper road drainage. The Purchaser will be advised of the time limitations to complete each maintenance project.

5. Final maintenance of the road system is required after all logging and hauling and prior to termination of the Timber Sale Contract.

B. SURFACE BLADING:

1. Description: Surface blading is keeping a native or aggregate roadbed in a condition to facilitate traffic and provide proper drainage. It includes maintaining the crown or slope, shoulder, drainage dips, leadoff ditches, berms and turnouts, and provides a level of smoothness appropriate for the amount and kind of traffic served and consistent with existing surfacing.
2. Specifications:
 - a. The existing roadbeds, including turnouts, shall be bladed and shaped to reasonably conform to the designed cross section, and to eliminate ruts. Existing aggregate surfacing shall be bladed to conserve material and to prevent segregation of particle sizes. Rocks or other material remaining on the traveled way surface after final blading which are 4 inches or larger in size shall be removed from the road surface.
 - b. Roadside cutslopes should not be undercut when cleaning ditches or removing road sloughs. Berms shall be removed from road shoulders when blading, except where berms are located as part of road design.
 - c. Cutslopes that have been undercut may require backsloping, seeding and fertilizing.
 - d. At intersections, the roadbeds at side roads shall be graded for a reasonable distance to assure proper blending of the two riding surfaces.
 - e. Drainage dips and leadoff ditches shall be cleaned and graded to form their previous line and grade.
 - f. Crowned roads should slope towards shoulders at least 2-5% (1/4-1/2 inch per foot road width) on native and gravel roads.
 - g. At intersections where side roads enter the main road and the entering side road exceeds +3%, shallow ditching across the side road may be required to divert surface runoff and protect the main road's stability.
 - h. The side-casting of road material into a stream, lake, wetland, or other body of water during road maintenance operations is prohibited in the SMZ.

C. DITCH CLEANING:

1. Description: Ditch cleaning is removing and disposing of all foreign and slough material from roadside ditches to provide an unobstructed waterway conforming reasonably to previous line, grade and cross section.
2. Specifications:
 - a. Slough material removed from the ditch may be blended into existing native road surface or shoulder only if it is the same material as the road surface. Slough material that is not suitable for blending should be disposed of as directed by the Forest Officer.
 - b. Live vegetation and other organic material shall be removed and disposed of as directed by the Forest Officer.
 - c. Unstable stumps, rocks, leaning trees or other debris shall be removed from the cutslope as

directed by the Forest Officer.

D. CULVERT MAINTENANCE:

1. Description: Maintenance is work performed on inlets, outlets, catch basins, related channels, existing riprap, trash racks and any other facilities related to the drainage structure.
2. Specifications: Catch basins, outlets and energy dissipaters shall be kept functioning and cleaned of debris. Ends of culverts shall be kept straight and undamaged. Any washing alongside or underneath the culvert shall be repaired.

E. ROADSIDE VEGETATION MAINTENANCE:

1. Description: Maintenance of roadside vegetation includes removal of brush, tree growth, deadfall or other obstructions to passage, safety or visibility, as such obstructions are present or develop during the contract period.
2. Specifications:
 - a. All trees that have fallen across the road shall be removed from the road prism unless otherwise agreed upon. Merchantable timber, if any, shall be cut in appropriate lengths and decked along the roadside in locations where traveled way width or sight distances will not be impaired.
 - b. Brush and seedling trees that encroach upon the original road clear limits shall be removed when they reduce safe sight distances. Low shrubs and brush that do not restrict sight distance but provide cover and reduce erosion shall not be removed. Brush and seedling trees removed shall be disposed of as directed by the Forest Officer.

F. SNOWPLOWING: If hauling occurs during the winter months, the Purchaser will be required to plow snow to the following guidelines on all State and private roads.

1. Snow should be windrowed beyond the fill shoulder line.
2. To protect the road surface, a 1 to 4-inch cushion of snow may be left on the road.
3. At termination of use, the road will be prepared for spring runoff by opening drainage outlets through the plowed berms and by installing a snow-berm road closure.
4. Tracked equipment will not be used to plow snow without prior written approval from the Forest Officer.
5. The side-casting of road material into a stream, lake, wetland, or other body of water during snow plowing operations is prohibited in the SMZ.

G. DUST ABATEMENT: The Purchaser may be required to perform dust abatement on any of the roads designated as part of the haul route. Any dust abatement must conform to current standards of the owner of the road.

1. If the Purchaser applies Magnesium Chloride or Calcium Chloride for dust abatement, the following specifications will be followed:
 - a. Dust abatement will be applied prior to summer hauling of logs.
 - b. Scarify road surface and grade to final grading specifications. A minimum of two inches of loose material is required on the road surface prior to applying the abatement.
 - c. The road surface will be moist to a minimum of depth of two inches or watered uniformly to

- moisten the road. If the road is watered, it will be done twelve to twenty-four hours prior to application of the abatement.
- d. The abatement will be applied at the rate of 0.25 gallons Magnesium Chloride per square yard or 0.20 gallons Calcium Chloride per square yard, followed immediately by another application at the same rate, for a total of 0.5 gallons Magnesium Chloride per square yard or 0.4 gallons Calcium Chloride per square yard.
 - e. Chemical abatement will not be applied for 50 feet on either side of any stream crossing.
 - f. Additional treatments using water may be required if deemed necessary by the Forest Officer.
2. The Purchaser is required to apply dust abatement on Lower Whitefish Road. Dust abatement shall be applied before hauling any timber. Magnesium Chloride shall be used for dust abatement.

H. NOXIOUS WEED MANAGEMENT: The Purchaser may be required to perform noxious weed management on any of the roads designated as part of the haul route and on landings. Noxious weed management may include grass seeding, equipment washing and herbicide spraying.

1. Grass seeding, if required, is shown in Section IX, GRASS SEEDING SPECIFICATIONS.
2. All road construction equipment and equipment used in off-road logging activity must be pressure-washed by the Purchaser and inspected by the Forest Officer prior to entering the sale area. This cleaning will remove all dirt, plant parts, and material that may carry noxious weed seeds into the sale area. Other equipment and vehicles entering and leaving the sale area shall be cleaned prior to start up and kept reasonably clean during the course of operations. All subsequent move-ins of logging and construction equipment shall be treated the same as the initial move-in.
3. If spraying is required in Attachment B, it shall be done by a commercial applicator licensed by the State of Montana or by personnel under the direct supervision of the licensed applicator. All herbicide applications shall follow EPA label requirements. Any weed control must comply with the current standards of the County Weed Board and as directed by the Forest Officer.

VII. ADDITIONAL REQUIREMENTS

A. TEMPORARY SPUR ROAD SPECIFICATIONS: Temporary spur roads are defined as any roads constructed by the Purchaser to access a harvest unit or landing which is not an existing road and may not be shown as a required road to be constructed in Table B-1. All temporary roads will be constructed to the following specifications:

1. Forest Officer shall approve the location prior to any construction.
2. Clearing and excavation shall be kept to the absolute minimum for safe truck hauling and to prevent erosion and water quality impacts. Some sidehill excavation, minor through cuts, ditching and turnpiking may be required.
3. Temporary culverts may be required at ditch crossings, wet areas or other locations as directed by the Forest Officer.
4. Temporary erosion control measures may be required to meet BMP standards on the road and/or the landing area while being used.
5. At the completion of use the road shall be shaped back to natural contours, temporary culverts removed, erosion control measures installed, the disturbed areas grass seeded and the access closed to all vehicular traffic. The Forest Officer may require scarification or ripping of compacted landings and temporary spur roads.

- B. GATES ON PRIVATE ROAD EASEMENTS:** When using private road easements to access the timber sale area, any gate encountered on private land will be left as prescribed by the easement grantor.
- C. GRID ROLLING ROAD PRISMS:** Grid rolling the road prisms is required on Roads. Grid rolling is required on the total length of each road.
- D. TRAFFIC CONTROL AND WARNING SIGN SPECIFICATIONS:**
1. The Purchaser shall furnish, erect, and maintain all necessary barricades, suitable and sufficient lights, danger signals, signs, and other traffic control devices, and shall take all necessary precautions for the protection of the work and safety of the public. Suitable warning signs shall be provided to properly control and direct traffic as requested by the Forest Officer.
 2. All road barricades, warning signs, lights, temporary signals, flagger and pilot car operations and equipment, and other protective devices, shall conform with the specifications in the Manual on Uniform Traffic Control Devices (MUTCD).

VIII. ROAD LOG AND SITE DESCRIPTIONS

Station (miles)	Work description	Materials or type of work	type and size	length or amount	Units
Lower Whitefish Road					
	<p>This is an 18' - 20' gravel surfaced road with turnouts that starts at the intersection of East Lakeshore Drive and Delray Road and continues approximately 11.3 miles where it connects with the Upper Whitefish Road near its 9 mile marker. This sale will utilize 11.3 miles of the Lower Whitefish Road system. Dust abatement will be applied for the first 300 feet of Lower Whitefish Road after the intersection with East Lakeshore Drive as necessary.</p> <p>The following will be required before hauling;</p> <ul style="list-style-type: none"> - pulling ditches - light brushing, brushing of CMP inlets/outlets - ripping and shaping of road surface to establish crown - CMP brushing/maintenance/replacement/installation (rock armor, etc.) (old CMPs MUST be recycled or returned to STW Unit boneyard) - flapper maintenance/replacement - place 5x large rocks to secure old landing (see below) - grass seeding of disturbed areas - installation of armored drive-thru drain dips, sump hole, etc. <p>Intermediate blading may be required. Rubber flappers and other drainage features must be functional during haul at the conclusion of operations. Otherwise, replacement will be required of the purchaser at the purchaser's expense.</p>				
0.00	BOP- light brushing				
0.00	Dust abatement, first 300 feet	abatement	initial	300	feet
0.02	Replace 24-foot rubber water diverter (flapper). Bed in 3/4 crushed gravel.	rubber flapper		24	feet
		earthwork	excavator	1	hours
		gravel	3/4" crush	2	cu. yds.
0.24	Clean inlet and outlet of CMP	cleaning	excavator	1	hours
0.26	Brush inlet of CMP	brushing	tractor	0.25	hours
0.29	Intersection with gated road on left.				
	<ul style="list-style-type: none"> - Establish drive through drain dip at intersection with gated road - Add 3x large (48") rocks to improve gate security 	drain dip		1	each
0.44	Add 5x large (48") rocks from West Fork Pit to secure old landing	earthwork	dump truck	1	hours

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0.65	Remove existing CMP and Install 18" x 26' ditch relief CMP - must recycle old CMP or transport to STW Unit boneyard - bed in crushed gravel - armor inlet/ outlet with talus - construct roll-over CMP for surface drainage - grass seed disturbed areas w/quick cover same day as installation	CMP	18"	26	feet
		CMP Band	18"	1	each
		earthwork	excavator	1.5	hours
		labor		1.5	hours
		gravel	3/4" crush	5	cu. yds.
		rock armor	talus	5	cu. yds.
		grass seed	quick cover	3	pounds
0.67	Intersection with Whitefish Trail- leave trail intact				
0.82	Brush and clean inlet and outlet of CMP	brushing	tractor	0.5	hours
		cleaning	excavator	1	hours
0.87	Brush inlet and outlet of CMP	brushing	tractor	0.5	hours
1.00	Improve drive through drain dip and intersect with ditch	earthwork	grader	1	hours
1.22	Brush and armor inlet and outlet of 18" CMP	brushing	tractor	0.5	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.
1.30	Brush and armor inlet and outlet of 18" CMP	brushing	tractor	0.5	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.
1.46	Cleanout 25' steel open top culvert and armor ditch uphill of catch basin for 50'	earthwork	excavator	2	hours
		rock armor	talus	5	cu. yds.
1.49	Cleanout 26' steel open top culvert	earthwork	excavator	1	hours
1.50	Intersection with Lower Jellison Road - no work				
1.52	Clean inlet and outlet on existing 24" CMP - Reestablish rock armor on CMP inlet/outlet	cleaning	excavator	1	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.
1.525	Existing slow seep crossing road; Install armored Sump Hole uphill side (4' X 4' X 4' hole, fill w/rocks)	earthwork	excavator	1	hours
		rock armor	talus	2	cu. yds.
1.67	Brush inlet on existing 18" ditch relief CMP	brushing	tractor	0.25	hours
1.68	Existing 32" pipe (wet) - no work				
1.80	Clean inlet and re-armor catch basin and outlet on 18" CMP. - Use local material for armor.	cleaning	excavator	1	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.
1.84	Brush, clean, and re-armor inlet on existing 18" CMP on ephemeral draw	brushing	tractor	0.25	hours
		cleaning	excavator	0.5	hours
		earthwork	excavator	0.25	hours
		rock armor	talus	1	cu. yds.
1.90	Unplug 18" CMP, clean and armor inlet, clean outlet - Add large rip rap from West Fork Pit (2-3') on catch basin due to steep slope above inlet	cleaning	excavator	1	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	1	cu. yds.
		earthwork	dump truck	1.5	hours
		rock armor	rip rap	10	cu. yds.
2.03	Clean and armor inlet and outlet of 18" CMP	cleaning	excavator	1	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.
2.10	Re-armor inlet and outlet of 18" CMP	earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.
2.15	Re-armor inlet and outlet of 18" CMP	earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.

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2.21	Brush and armor inlet and outlet of 18" CMP	brushing	tractor	0.5	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.
2.27	Clean inlet and armor inlet and outlet on 18" CMP	cleaning	excavator	0.5	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.
2.36	Clean inlet and armor both inlet and outlet on 18" CMP	cleaning	excavator	0.5	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.
2.57	<p>Remove existing 18" CMP and Install 24" x 30' CMP (wet site), A Hydrologist or Forest Officer must be present during CMP installation. Instream Operation Window July 15 - August 31.</p> <ul style="list-style-type: none"> - dewater crossing before installation - must recycle old CMP or transport to STW Unit boneyard - bed in crushed gravel - create new catch basin - armor inlet/ outlet with talus - construct roll-over CMP for surface drainage - install slash filter windrow inlet/outlet - install 1 18" rock energy dissipator - grass seed (quick cover) disturbed area same day as installation <p>See Site 1 of Attachment E for further detail.</p>	CMP	24"	30	feet
		CMP Band	24"	1	each
		earthwork	excavator	4	hours
		labor		4	hours
		gravel	3/4" crush	5	cu. yds.
		rock armor	talus	5	cu. yds.
		slash windrow		40	feet
		dissipator	rock	18	inch
		grass seed	quick cover	3	pounds
		2.60	CMP inlet crushed - reshape with bottle jack	labor	
2.64	Clean and armor inlet and outlet of 18" CMP	cleaning	excavator	1	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	5	cu. yds.
2.74	Intersection with Anchor Creek - no work				
2.77	Intersection with Anchor Creek Road - no work				
2.78	Brush and clean outlet on 18" CMP	brushing	tractor	0.25	hours
		cleaning	excavator	0.5	hours
3.05	Clean and armor inlet and outlet of 18" CMP	cleaning	excavator	1	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.
3.11	Clean catch basin, brush inlet on CMP (wet site) - Armor ditchline 50' w/talus	brushing	tractor	0.25	hours
		cleaning	excavator	0.5	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	5	cu. yds.
3.20	Clean and armor inlet and outlet of CMP (Perennial Stream) - Armor uphill ditchline 50' w/talus	cleaning	excavator	1	hours
		earthwork	excavator	0.5	hours
		rock armor CMP	talus	8	cu. yds.
		rock armor ditch	talus	10	cu. yds.
3.4	Clean and armor outlet of CMP	cleaning	excavator	0.5	hours
		earthwork	excavator	0.25	hours
		rock armor	talus	2	cu. yds.
3.48	Clean catch basin on CMP	cleaning	excavator	0.25	hours
3.64	Add slash filter windrow to trap sediment caused by road widening	slash windrow	excavator	0.5	hours
	Intersection with Trail Creek - no work				
3.65	Clean leadout on drain dip - Line right ditch with talus from drain dip until 20' from the stream	cleaning	excavator	0.25	hours
		earthwork	excavator	0.75	hours
		rock armor	talus	5	cu. yds.

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3.89	Brush catch basin on CMP	brushing	tractor	0.25	hours
4.27	Hemlock Creek - no work				
4.31	Existing CMP--Add energy dissipation--18" rock to outlet	dissipator	rock	2	each
		earthwork	excavator	0.5	hours
4.46	Armor inlet and outlet of CMP	rock armor	talus	2	cu. yds.
		earthwork	excavator	0.5	hours
4.49	Brush and armor catch basin (steep)	brushing	tractor	0.25	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.
4.55	Install 24" X 34' CMP (wet site), A Hydrologist or Forest Officer must be present during CMP installation. Instream Operation Window July 15 - August 31. - dewater crossing before installation - bed in crushed gravel - create new catch basin - armor inlet/ outlet with talus - construct roll-over CMP for surface drainage - install slash filter windrow inlet/outlet - grass seed (quick cover) disturbed area same day as installation See Site 2 of Attachment E for further detail.	CMP	24"	34	feet
		CMP Band	24"	1	each
		earthwork	excavator	4	hours
		labor		4	hours
		gravel	3/4" crush	5	cu. yds.
		rock armor	talus	5	cu. yds.
		slash windrow		40	feet
		grass seed	quick cover	3	pounds
4.67	Clean and armor inlet of CMP	cleaning	excavator	1	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	1	cu. yds.
4.70	Clean catch basin/inlet, armor inlet of CMP	cleaning	excavator	0.5	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	1	cu. yds.
4.76	Intersection with Middle Jellison Road- no work				
4.77	Establish left side ditch 50' Establish catch basin in front of swing post Install 18" x 24' CMP (ditch relief) - bed in crushed gravel - armor inlet/ outlet with talus - construct roll-over CMP for surface drainage - grass seed (quick cover) disturbed area same day as install	earthwork	excavator	0.5	hours
		earthwork	excavator	0.5	hours
		CMP	18"	24	feet
		CMP Band	18"	1	each
		earthwork	excavator	3	hours
		labor		4	hours
		gravel	3/4" crush	5	cu. yds.
		rock armor	talus	5	cu. yds.
4.99	Clean and brush inlet and outlet of CMP	cleaning	excavator	1	hours
		brushing	tractor	0.5	hours
5.05	Clean and armor inlet and outlet of 18" CMP	cleaning	excavator	1	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.
5.09	Armor inlet and outlet of 18" CMP	earthwork	excavator	0.5	hours
		rock armor	talus	5	cu. yds.
5.28	Clean catch basin, inlet and outlet of CMP. Rock armor inlet and outlet	cleaning	excavator	1	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.
5.31	Clean and armor inlet and outlet of CMP	cleaning	excavator	1	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.

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5.39	Clean and armor inlet and outlet of CMP	cleaning	excavator	1	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.
5.41	Clean and armor inlet and outlet of CMP	cleaning	excavator	1	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.
5.59	Clean, brush and armor inlet and outlet of CMP	cleaning	excavator	1	hours
		brushing	tractor	0.5	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.
5.65	Install 24" x 40' CMP (wet site), A Hydrologist or Forest Officer must be present during CMP installation. Instream Operation Window July 15 - August 31. - dewater crossing before installation - bed in crushed gravel - create new catch basin - armor inlet/ outlet with talus - construct roll-over CMP for surface drainage - install slash filter windrow inlet/outlet - grass seed (quick cover) disturbed area same day as installation See Site 3 of Attachment E for further detail.	CMP	24"	40	feet
		CMP Band	24"	1	each
		earthwork	excavator	5	hours
		labor		5	hours
		gravel	3/4" crush	10	cu. yds.
		rock armor	talus	5	cu. yds.
		slash windrow		40	feet
		grass seed	quick cover	3	pounds
5.66	Intersection with Taylor Creek- no work				
5.70	Armor inlet/catch basin and outlet of CMP (wet site), - Add talus to the ditchline for 30' each direction	earthwork	excavator	1	hours
		rock armor	talus	7	cu. yds.
		armor ditch	talus	8	cu. yds.
		earthwork	excavator	0.5	hours
5.84	Clean and armor inlet/catch basin and outlet of CMP	cleaning	excavator	1	hours
		earthwork	excavator	0.75	hours
		rock armor	talus	5	cu. yds.
5.91	Clean and armor inlet and outlet of CMP	cleaning	excavator	1	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.
5.93	Brush and clean inlet of CMP	cleaning	excavator	0.5	hours
		brushing	tractor	0.25	hours
5.99	Clean and armor inlet and outlet of CMP	cleaning	excavator	1	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.
6.16	Clean inlet of CMP	earthwork	excavator	0.25	hours

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6.66	<p>Remove CMP and replace with 60" x 40' CMP (wet site), A Hydrologist or Forest Officer must be present during CMP installation. Instream Operation Window July 15 -August 31.</p> <p>This 60" x 40' CMP must include four metal baffles permanently welded to inside the pipe floor and wall. Each baffle must be 15" deep from the bottom of the pipe and spaced at 8-foot intervals from the pipe inlet. See the attached specification. See attached specifications.</p> <ul style="list-style-type: none"> - dewater crossing before installation - must recycle old CMP or transport to STW Unit boneyard - bed in crushed gravel - create new catch basin - armor inlet/ outlet with talus - construct roll-over CMP for surface drainage - install slash filter windrow inlet/outlet - grass seed (quick cover) disturbed area same day as installation <p>See Site 4 of Attachment E for further detail.</p>	CMP	60"	40	feet
		CMP Band	60"	1	each
		earthwork	excavator	16	hours
		labor		16	hours
		gravel	3/4" crush	20	cu. yds.
		rock armor	talus	10	cu. yds.
		slash windrow		40	feet
		grass seed	quick cover	3	pounds
6.67	Clean inlet, armor inlet and outlet of CMP	cleaning	excavator	0.5	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.
6.94	Armor inlet and outlet of CMP	earthwork	excavator	0.5	hours
		rock armor	talus	5	cu. yds.
6.98	Install rock armored drain dip - Talus ditchline 60' uphill	earthwork	excavator	1.5	hours
		rock armor	talus	2	cu. yds.
		armor ditch	talus	3	cu. yds.
6.99	Clean and armor inlet/catch basin and outlet of CMP - Pull both ditches and add talus for 50' uphill	cleaning	excavator	1	hours
		earthwork	excavator	1.5	hours
		armor ditch	excavator	0.5	hours
		rock armor	talus	8	cu. yds.
6.995	Install 32-foot concrete open top culvert and armor outlet. See attached Specification. - Compact area around culvert with wacker packer	open top culvert	concrete	1	each
		earthwork	excavator	2	hours
		labor		2	hours
		rock armor	talus	2	cu. yds.
7.01	<p>Remove and replace existing CMP with 24" x 40' ditch relief</p> <ul style="list-style-type: none"> - must recycle old CMP or transport to STW Unit boneyard - bed in crushed gravel - create new catch basin - Clean catch basin and inlet - Brush catch basin - armor inlet/ outlet with talus - construct roll-over CMP for surface drainage - grass seed (quick cover) disturbed area same day as installation 	CMP	24"	40	feet
		CMP Band	24"	1	each
		earthwork	excavator	4	hours
		labor		4	hours
		brushing	tractor	0.25	hours
		gravel	3/4" crush	5	cu. yds.
		rock armor	talus	5	cu. yds.
		grass seed	quick cover	3	pounds
7.08	Clean catch basin on CMP	cleaning	excavator	0.25	hours
7.27	Clean and armor inlet and outlet of CMP	cleaning	excavator	1	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.
7.34	Clean inlet, armor inlet and outlet of CMP	cleaning	excavator	0.5	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.

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7.37	Pull road back 2-3' 50' either side of CMP - Install 40' Slash Filter Windrow - Armor inlet and outlet of CMP	earthwork	excavator	1.5	hours
		slash windrow		40	feet
		rock armor	talus	2	cu. yds.
7.40	Armor inlet and outlet of CMP	earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.
7.48	Remove buried 12" CMP and replace with 18" x 34' CMP (ditch relief) - must recycle old CMP or transport to STW Unit boneyard - bed in crushed gravel - armor inlet/ outlet with talus - construct roll-over CMP for surface drainage - grass seed (quick cover) disturbed area same day as install	CMP	18"	34	feet
		CMP Band	18"	1	each
		earthwork	excavator	1.5	hours
		labor		1.5	hours
		gravel	3/4" crush	5	cu. yds.
		rock armor	talus	5	cu. yds.
		grass seed	quick cover	3	pounds
7.49	Clean and armor inlet and outlet of CMP	cleaning	excavator	1	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.
7.64	Clean and armor inlet and outlet of CMP	cleaning	excavator	1	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.
7.66	Clean and armor outlet of CMP (wet site)	cleaning	excavator	0.5	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	1	cu. yds.
7.79	Clean inlet of CMP (wet site)	cleaning	excavator	0.5	hours
7.87	Clean catch basin, armor inlet/catch basin of CMP - Talus ditchline 30' both directions	cleaning	excavator	0.25	hours
		earthwork	excavator	0.25	hours
		rock armor	talus	8	cu. yds.
7.93	Clean catch basin and outlet. -Armor inlet and outlet of CMP	cleaning	excavator	0.5	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.
8.09	Clean and armor outlet of CMP	cleaning	excavator	0.5	hours
		earthwork	excavator	0.25	hours
		rock armor	talus	1	cu. yds.
8.15	Clean and armor inlet and outlet of CMP	cleaning	excavator	1	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.
8.16	Clean and armor inlet and outlet of CMP	cleaning	excavator	1	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.
8.38	Armor inlet and outlet of CMP, clean catch basin	cleaning	excavator	0.25	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.
8.51	Clean and armor inlet, armor outlet and catch basin	cleaning	excavator	0.5	hours
		earthwork	excavator	0.75	hours
		rock armor	talus	5	cu. yds.
8.57	Clean and armor inlet and outlet of CMP	cleaning	excavator	1	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.

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8.64	Armor inlet, clean and armor outlet of CMP	cleaning	excavator	0.5	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.
8.91	Existing CMP- No work				
8.95	Blade road to outside of curve (away from inside) to keep material from sloughing into inside ditch	earthwork	grader	1	hours
8.99	Armor inlet and outlet of CMP (wet site)	earthwork	excavator	0.5	hours
		rock armor	talus	2	cu. yds.
9.05	Clean and armor inlet and catch basin - Install energy dissipation (local) and rock armor outlet	cleaning	excavator	0.5	hours
		earthwork	excavator	0.75	hours
		rock armor	talus	5	cu. yds.
		dissipator	rock	18	inch
9.06	Clean and armor inlet and outlet of CMP	cleaning	excavator	1	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	5	cu. yds.
9.09	Armor inlet and outlet, add energy dissipation on outlet of ditch relief CMP	earthwork	excavator	1	hours
		rock armor	talus	5	cu. yds.
		dissipator	large rock - 18"	1	each
9.11	Remove buried 12" CMP and replace with 18" x 34' CMP - must recycle old CMP or transport to STW Unit boneyard - bed in crushed gravel - armor inlet/ outlet with talus - construct roll-over CMP for surface drainage - grass seed (quick cover) disturbed area same day as install	CMP	18"	34	feet
		CMP Band	18"	1	each
		earthwork	excavator	1.5	hours
		labor		1.5	hours
		gravel	3/4" crush	5	cu. yds.
		rock armor	talus	5	cu. yds.
		grass seed	quick cover	3	pounds
9.68	Armor catch basin and outlet - Add talus to ditchline 10' in both directions - Add energy dissipation to outlet	earthwork	excavator	0.5	hours
		rock armor	talus	5	cu. yds.
		dissipator	talus	1	cu. yds.
9.82	Clean inlet, armor outlet on CMP	cleaning	excavator	0.5	hours
		earthwork	excavator	0.25	hours
		rock armor	talus	2	cu. yds.
9.90	Clean outlet (remove woody debris) on existing Squash CMP (wet site)	cleaning	excavator	0.5	hours
9.95	Clean inlet on CMP - preserve existing geotextile in road - Add 6" lift for 100ft	cleaning	excavator	0.5	hours
		earthwork	excavator	1	hours
		gravel	3/4" crush	50	cu. yds.
9.97	Clean inlet on CMP	cleaning	excavator	0.5	hours
10.00	Clean inlet on CMP	cleaning	excavator	0.5	hours
10.07	Clean inlet, armor inlet and outlet of CMP	cleaning	excavator	0.5	hours
		earthwork	excavator	0.5	hours
		rock armor	talus	5	cu. yds.
10.10	Clean inlet, clean (remove woody debris) and armor outlet CMP	cleaning	excavator	1	hours
		earthwork	excavator	0.25	hours
		rock armor	talus	2	cu. yds.
10.11	Clean inlet	cleaning	excavator	0.25	hours
10.23	- Clean outlet of CMP, armor inlet and outlet of CMP. - armor ditch 50' uphill	cleaning	excavator	0.5	hours
		earthwork	excavator	1.5	hours
		rock armor	talus	7	cu. yds.
10.30	Clean inlet of CMP	cleaning	excavator	0.5	hours

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10.68	Remove and replace existing CMP with 24" x 34' CMP (wet site), A Hydrologist or Forest Officer must be present during CMP installation. Instream Operation Window July 15 -August 31. - dewater crossing before installation - must recycle old CMP or transport to STW Unit boneyard - bed in crushed gravel - Clean catch basin and inlet - brush catch basin - armor catch basin, inlet and outlet with talus - construct roll-over CMP for surface drainage - install slash filter windrow on inlet/outlet - install 1 18" rock energy dissipator - grass seed (quick cover) disturbed area same day as install See Site 5 of Attachment E for further detail.	CMP	24"	34	feet
		CMP Band	24"	1	each
		earthwork	excavator	4	hours
		labor		4	hours
		brushing	tractor	0.25	hours
		gravel	3/4" crush	5	cu. yds.
		rock armor	talus	5	cu. yds.
		slash windrow		40	feet
		dissipator	rock	18	inch
		grass seed	quick cover	3	pounds
10.80	Intersection with Chicken Pit Gate Road - no work				
11.3	EOP				
	Purchaser-do road development				
	Tractor brushing	brushing	tractor	11.3	miles
	Initial blading	blading	initial	11.3	miles
	Dump truck cost for ALL rock	earthwork	dump truck	81	hours
	Truck and trailer transport for removing/installing CMPs, Open-Top Culverts	transport	truck/trailer	10	hours
	Purchaser-do Road Maintenance				
	Final blading	blading	final	11.3	miles
Upper Whitefish Road					
	This is an 18' - 20' gravel surfaced road that starts at Highway 93N near mile marker 145.6 and continues to mile marker 9 on Upper Whitefish Road where it connects with the end of Lower Whitefish Road. This sale will utilize 9.0 miles of this road system. Road will require brushing and grading(see below). Dust abatement will be required for 300 feet after the junction with the Lower Whitefish Road along that road, and 300 feet along Upper Whitefish Road before the junction, for feet total at this location, as necessary as per Forest Officer. Intermediate blading may be required.				
	Purchaser-do road development				
0.0	BOP. Junction with Highway 93. No work.				
1.9 to 9.0	Moderate tractor brush both sides of road	brushing	tractor	7.1	miles
0.0 to 9.0	Initial blading	blading	initial	9	miles
9.0	EOP. Junction with Lower Whitefish Road				
	Final Purchaser-do Road Maintenance				
	Final Blading	blading	final	9	miles
9.0	Dust abatement. 300 feet before junction with Lower Whitefish Road & 300 feet after along Lower Whitefish Road.	abatement	initial	600	feet

ATTACHMENT B

King Bear Road					
	<p>This road is gated. It is an existing 14-to-16-foot wide native surface road that begins at approximately 1 1/4 mile marker on the Lower Whitefish Road, and ends at the DNRC property line with Stoltze at a gate at 1.07 miles. Dust abatement will be required along Lower Whitefish Road for 300 feet before the junction with King Bear Road, and 300 feet after, for a total of 600 feet at this location, as necessary as per Forest Officer.</p> <p>Work required before hauling includes: - surface drainage improvement and maintenance - initial blading</p> <p>Intermediate blading may be required.</p>				
0+00	BOP - intersection with Lower Whitefish Road				
0+00	Dust abatement: 300 feet before junction and 300 feet after along Lower Whitefish Road.	abatement	initial	600	feet
3+30	Existing drain dip/water bar. Ensure functioning	earthwork	grader	0.25	hours
10+40	Existing drain dip. Ensure functions. Improve/dig out leadout	earthwork	grader	0.5	hours
13+55	18" ditch relief CMP. Clean inlet	cleaning	excavator	0.5	hours
16+90	Drain dip/water bar. Improve and ensure functioning. Intercept ditch.	earthwork	grader	0.25	hours
22+30	Drain dip/water bar. Improve, ensure functioning.	earthwork	grader	0.25	hours
36+30	Junction with skid road on R--no work				
40+00	Existing CMP - no work				
43+40	Existing CMP - no work				
46+90	Drain dip. Improve, make functional.	earthwork	grader	0.25	hours
47+95	Intersection with King Bear Spur- no work				
56+59	EOP 1.07 miles DNRC/Stoltze gate & Property line.				
	Purchaser-do road development				
	Initial blading	blading	initial	1.07	miles
	Final Purchaser-do Road Maintenance				
	Final Blading	blading	final	1.07	miles
	Grass seed running surface post final blade (Stillwater Blend) (20 #/acre)	grass seed	STW blend	36	pounds

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King Bear Spur					
	This road is an existing 14- to 16-foot wide native surface road that begins at station 47+95 on the King Bear Road and ends at 13+50.				
	The following maintenance will be required before hauling: - Initial blading, pulling ditches, heavy brushing, kelly hump removal, CMP brushing, surface drainage improvement and maintenance, grass seeding of disturbed areas (w/in 48 hrs).				
	Intermediate blading may be required.				
0+00	BOP				
1+45	Brush inlet and outlet of CMP	brushing	excavator	0.5	hours
2+70	Clean flapper	earthwork	excavator	0.5	hours
3+70	Remove kelly hump pre-harvest	earthwork	excavator	0.5	hours
3+70 to 5+65	Gravel needed, road collecting water for 50-100': bring low spot level	gravel	3/4" crush	10	cu. yds.
		earthwork	dump truck	1	hours
9+60	Blade rut out, smooth road to 13+50 (390')	earthwork	grader	1	hours
12+05	Brush inlet and outlet of CMP	brushing	excavator	0.5	hours
13+50	EOP - junction with Upper King Bear Spur and Lower King Bear Spur				
	Purchaser-do road development				
	Excavator brushing	brushing	excavator	0.26	miles
	Initial blading	blading	initial	0.26	miles
	Grass seed shoulders (Stillwater Blend) (20 #/acre)	grass seed	STW blend	6	pounds
	Final Purchaser-do Road Maintenance				
	Final Blading	blading	final	0.26	miles
	Grass seed running surface post final blade (Stillwater Blend) (20 #/acre)	grass seed	STW blend	9	pounds
	Close road following final blading and grass seed (earth berm/kelly hump)	earthwork	excavator	0.5	hours

ATTACHMENT B

Temporary Bridge for excavated skid trail access to Unit 2 (optional)					
	<p>Optional temporary excavated skid trail construction beginning at STA 5+15 of Upper King Bear Spur to access Unit 2, includes placement and removal of temporary bridge (CLT). The CLT bridge structure must be hauled to the installation site from the Stillwater Unit Office Yard in Olney, MT. Use of skid trail and temporary bridge crossing limited to logging equipment. No vehicles or log trucks may cross the CLT bridge or utilize the excavated skid trail.</p> <p>Upon harvest completion of Unit 2, the trail must be reclaimed and CLT removed and returned to the Stillwater Unit Office yard in Olney, MT.</p>				
0+00	BOP. STA 5+15 of Upper King Bear Road. Begin excavated skid trail				
0+00	Install CLT Bridge--20 foot: 9-ply A Hydrologist or Forest Officer must be present during CMP installation. Installation Operation Window July 15 -August 31. Following completion of Unit 2, bridge removal is not seasonally restricted.				
	transport bridge (before and after use)	transport	truck/trailer	6	hours
	construction laborer	labor		6	hours
	machine time	earthwork	excavator	6	hours
	4- 3" x 10"x 16' boards. Place bridge on 2-3" x 10" x 16' boards, each side. Bridge span 24' maximum.				
	2 - 6" x 6" x 15.5' angle iron (3/8") w/ 3/8" holes drilled 18" apart on each leg and offset.				
	4 - 6" x 6" x 18" angle iron (3/8") w/ 3 evenly spaced 3/8" hole drilled on each leg				
	4 - rebar pins 1" diameter x 24" long w/chain attached				
	2 - wood wattles	wattles		2	each
	Construction fabric	const fabric		50	feet
	grass seed	grass seed	quick cover	5	pounds
	gravel	gravel	3/4" crush	15	cu. yds.
	sediment fence	filter fence		40	feet
	gravel transport	earthwork	dump truck	3	hour
	See Site 14 of Attachment E for further detail.				

ATTACHMENT B

Upper King Bear Spur					
	<p>This Road is an existing 10- to 16-foot wide native surface road that begins at the junction of Lower King Bear Spur and Upper King Bear Spur at station 13+50 of the King Bear Spur, and ends at STA 36+96. Portions of this road are steep, with slopes between 15% and 18%.</p> <p>The Following maintenance will be required before hauling:</p> <ul style="list-style-type: none"> - Heavy brushing, major road prism repair, CMP and other surface drainage installation, grass seeding of disturbed areas (w/in 48 hours), final blading and grass seeding of entire road surface post final blade. - Centerline marked with pink flagging - Clear limits described in Attachment B in Section IX - Specifications and Drawings. - Right of way clearing and grubbing shall either windrow or pile slash. <p>Intermediate blading may be required. Rubber flappers and other drainage features must be functional during haul at the conclusion of operations. Otherwise, replacement will be required of the purchaser at the purchaser's expense.</p>				
0+00	BOP				
2+00	Install 18' Flapper and dig leadout	rubber flapper		18	feet
		earthwork	excavator	1	hours
3+50	Install 18' Flapper and dig leadout	rubber flapper		18	feet
		earthwork	excavator	1	hours
7+05	Install 18' Flapper	rubber flapper		18	feet
		earthwork	excavator	1	hours
8+60	Install 18' Flapper	rubber flapper		18	feet
		earthwork	excavator	1	hours
9+75	Install 18' Flapper	rubber flapper		18	feet
		earthwork	excavator	1	hours
11+30	Install 18' Flapper	rubber flapper		18	feet
		earthwork	excavator	1	hours
12+50	Existing slump in road bed. Rebuild road prism with local borrow	earthwork	excavator	3	hours
		local borrow material		15	cu yds
12+85	Install 18' Flapper	rubber flapper		18	feet
		earthwork	excavator	1	hours
14+55	Install 18' Flapper	rubber flapper		18	feet
		earthwork	excavator	1	hours
15+50	Relocate road 10' to the right (away from SMZ) for 450'	earthwork	excavator	12	hours
16+00	Install 18' Flapper	rubber flapper		18	feet
		earthwork	excavator	1	hours
17+55	Install 18' Flapper	rubber flapper		18	feet
		earthwork	excavator	1	hours
19+10	Install 18' Flapper	rubber flapper		18	feet
		earthwork	excavator	1	hours
23+00	Install 24" x 34' CMP (wet site), A Hydrologist or Forest Officer must be present during CMP installation. Instream Operation Window July 15 - August 31. - dewater crossing before installation - bed in crushed gravel - armor inlet/ outlet with talus - construct roll-over CMP for surface drainage - install slash filter windrow on inlet/outlet - install 1 18" rock energy dissipator - grass seed (quick cover) disturbed area same day as install See Site 6 of Attachment E for further detail.	CMP	24"	34	feet
		CMP Band	24"	1	each
		gravel	3/4" crush	10	cu. yds.
		earthwork	dump truck	3	hour
		earthwork	excavator	4	hours
		labor		4	hours
		slash windrow		40	feet
		rock armor	talus	5	cu. yds.
		dissipator	rock	18	inch
grass seed	quick cover	3	pounds		

ATTACHMENT B

24+75	Install 24" x 40' CMP (wet site), A Hydrologist or Forest Officer must be present during CMP installation. Instream Operation Window July 15 - August 31. - dewater crossing before installation - must recycle old CMP or transport to STW Unit boneyard - bed in crushed gravel - armor inlet/ outlet with talus - construct roll-over CMP for surface drainage - install slash filter windrow on inlet/outlet - install 1 18" rock energy dissipator - grass seed (quick cover) disturbed area same day as install See Site 7 of Attachment E for further detail.	CMP	24"	40	feet
		CMP Band	24"	1	each
		gravel	3/4" crush	10	cu. yds.
		earthwork	dump truck	3	hour
		earthwork	excavator	4	hours
		labor		4	hours
		slash windrow		40	feet
		rock armor	talus	5	cu. yds.
		dissipator	rock	18	inch
		grass seed	quick cover	3	pounds
29+58	Junction with 7a Spur on right - no work				
36+96	EOP - begin Hook Spur temp road.				
	Purchaser-do road development				
	Excavator brushing	brushing	excavator	0.7	miles
	Initial blading	blading	initial	0.7	miles
	Grass seed shoulders (Stillwater Blend) (20 #/acre)	grass seed	STW blend	17	pounds
	Truck and trailer transport for installing CMPs, Flappers	transport	truck/trailer	2	hours
	Final Purchaser-do Road Maintenance				
	Final Blading	blading	final	0.7	miles
	Grass seed running surface post final blade (Stillwater Blend) (20 #/acre)	grass seed	STW blend	24	pounds
	Close access to old road 155 feet north of Upper King Bear Spur at STA 36+96; earth berm, logs, or other	earthwork	excavator	0.25	hours
7b South Spur (new temp road construction)					
	This will be a native-surface temporary road beginning at STA 1+07 of the Hook Spur. The first 361 feet are mandatory temporary spur and must be built to temp road specs. An optional temp road/skid trail extension may be built--see next road segment. - Road width: 14-foot surface plus inboard ditch, outsloped 2%. - Road length: minimum 361 feet - Road construction required including: pioneering, grass seeding (w/in 48 hours), and (possible) surface drainage installation - Centerline marked with pink flagging - Clear limits described in Attachment B in Section IX - Specifications and Drawings. - Right of way clearing and grubbing shall either windrow or pile slash. Intermediate blading may be required. Following use: Although built as a "temporary road" for this contract, full reshaping to natural contours will not be required, other requirements in VII.A.5. are required. Additionally, road drainage features must be left in good condition and functional at the conclusion of operations.				
0+00	BOP. Begins at STA 1+07 of Hook Spur.				
3+61	End mandatory temp road construction				
	Purchaser-do road development				
	Pioneering - normal	earthwork	initial	0.07	miles
	Initial blading	blading	initial	0.07	miles
	Grass seed areas disturbed during road construction (Stillwater Blend) (20 #/acre)	grass seed	STW blend	2	pounds
	Purchaser-do road maintenance				
	Final blading and surface drainage maintenance	blading	final	0.07	miles
	Grass seed running surface post final blade (Stillwater Blend) (20 #/acre)	grass seed	STW blend	2	pounds

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	7b South Spur Extension (optional new temp road/skid trail)				
	<p>This section will be a native-surface optional temp road/excavated skid trail extension, beginning at STA 361 of the 7b South Spur, with up to 1,283 feet available as a temporary road or excavated skid trail. If extension built as a skid trail, no log trucks will be allowed and trail must be completely recontoured upon harvest unit completion.</p> <ul style="list-style-type: none"> - Extension road width: 14-foot surface plus inboard ditch, outsloped 2%. - Extension road length: up to 1,283 feet <ul style="list-style-type: none"> - Road construction required including: pioneering, grass seeding (w/in 48 hours), and (possible) surface drainage installation - Centerline marked with pink flagging - Clear limits described in Attachment B in Section IX - Specifications and Drawings. - Right of way clearing and grubbing shall either windrow or pile slash. 				
0+00	BOP. At end of mandatory temp road construction segment STA 3+61				
12+83	End optional temp road/excavated skid trail extension				
	Purchaser-do road development				
	Pioneering - normal	earthwork	initial	0.24	miles
	Initial blading	blading	initial	0.24	miles
	Grass seed areas disturbed during road construction (Stillwater Blend) (20 #/acre)	grass seed	STW blend	6	pounds
	Purchaser-do road maintenance				
	Final blading and surface drainage maintenance	blading	final	0.24	miles
	Grass seed running surface post final blade (Stillwater Blend) (20 #/acre)	grass seed	STW blend	8	pounds
	7a Spur (new permanent road construction)				
	<p>This will be a native-surface road beginning at STA 29+58 of the Upper King Bear Spur.</p> <ul style="list-style-type: none"> - Road width: 14-foot surface plus inboard ditch, outsloped 2%. - Road length: up to 550 feet <ul style="list-style-type: none"> - Road construction required including: pioneering, grass seeding (w/in 48 hours). - Centerline marked with pink flagging - Clear limits described in Attachment B in Section IX - Specifications and Drawings. - Right of way clearing and grubbing shall either windrow or pile slash. <p>Intermediate blading may be required.</p>				
0+00	BOP. Begins at STA 29+58 Upper King Bear Spur. No work				
5+50	EOP. Possible landing location.				
	Purchaser-do road development				
	Pioneering - normal	earthwork	initial	0.1	miles
	Initial blading	blading	initial	0.1	miles
	Grass seed areas disturbed during road construction (Stillwater Blend) (20 #/acre)	grass seed	STW blend	2	pounds
	Purchaser-do road maintenance				
	Final blading and surface drainage maintenance	blading	final	0.1	miles
	Grass seed running surface post final blade (Stillwater Blend) (20 #/acre)	grass seed	STW blend	4	pounds

7b Flat Spur (optional new temp road or excavated skid trail construction)					
	<p>This will be an optional native-surface temporary road/excavated skid trail beginning at STA 4+15 of the Hook Spur. If built as a skid trail, no log trucks will be allowed and trail must be completely rehabilitated upon harvest unit completion. If built as a temp road, one water bar may need constructed as deemed necessary by the Forest Officer.</p> <ul style="list-style-type: none"> - Road width: 14-foot surface plus inboard ditch, outsloped 2%. - Road length: up to 588 feet <ul style="list-style-type: none"> - Road construction required including: pioneering, grass seeding (w/in 48 hours), and (possible) surface drainage installation - Centerline marked with pink flagging - Clear limits described in Attachment B in Section IX - Specifications and Drawings. - Right of way clearing and grubbing shall either windrow or pile slash. 				
0+00	BOP. Begins at STA 4+15 of Hook Spur. No work.				
2+00	Install water bar as per Forest Officer	earthwork	excavator	0.25	hours
5+88	EOP/Landing				
	Purchaser-do road development				
	Pioneering - normal	earthwork	initial	0.11	miles
	Initial blading	blading	initial	0.11	miles
	Grass seed areas disturbed during road construction (Stillwater Blend) (20 #/acre)	grass seed	STW blend	3	pounds
	Purchaser-do road maintenance				
	Final blading and surface drainage maintenance	blading	final	0.11	miles
	Grass seed running surface post final blade (Stillwater Blend) (20 #/acre)	grass seed	STW blend	4	pounds
Hook Spur (new temp road construction)					
	<p>This native surface road will begin at STA 36+96 of Upper King Bear Spur. Slopes range from 2-12%, average about 8%.</p> <ul style="list-style-type: none"> - Road width: 14-foot surface plus inboard ditch, outsloped 2%. - Road length: 2,164 feet required: 568 feet extension optional. <ul style="list-style-type: none"> - Road construction required including: pioneering, grass seeding (w/in 48 hours), and surface drainage and CLT installation - Centerline marked with pink flagging - Clear limits described in Attachment B in Section IX - Specifications and Drawings. - Right of way clearing and grubbing shall either windrow or pile slash. - Grass seed CMP within one day of culvert installation <p>Intermediate blading may be required.</p> <p>Following use: Although built as a "temporary road" for this contract, full reshaping to natural contours and removal of the CMP stream crossing at Station 2+80 will not be required, other requirements in VII.A.5. are required. Additionally, the stream crossing and road drainage features must be left in good condition and functional at the conclusion of operations.</p>				
0+00	BOP. Starts at STA 36+96 Upper King Bear Spur				
2+80	<p>Install 24" x 35' CMP (wet site), A Hydrologist or Forest Officer must be present during CMP installation. Instream Operation Window July 15 - August 31.</p> <ul style="list-style-type: none"> - dewater crossing before installation - bed in crushed gravel - armor inlet/ outlet with talus - construct roll-over CMP for surface drainage - install slash filter windrow on inlet/outlet - install 1 18" rock energy dissipator - grass seed (quick cover) disturbed area same day as install <p>See Site 8 of Attachment E for further detail.</p>	CMP	24"	35	feet
		CMP Band	24"	1	each
		gravel	3/4" crush	10	cu. yds.
		earthwork	dump truck	3	hour
		earthwork	excavator	4	hours
		labor		4	hours
		slash windrow		40	feet
		rock armor	talus	5	cu. yds.
		dissipator	rock	18	inch
	grass seed	quick cover	3	pounds	

ATTACHMENT B

4+15	Intersection with 7b Flat Spur- no work				
6+00 to 10+50	Install 1-2 drain dips as deemed necessary by Forest Officer. - b/w 6+00 and 10+50	drain dip		2	each
13+85 to 16+00	Install 1 drivable water bar after hauling complete if deemed necessary by Forest Officer	earthwork	excavator	0.25	hours
16+00	Old road/skid trail template begins: Widen road from 10' to 14-16'. - Begin backhaul/build prism up - No sidecast between STA 16+00 to 18+80	earthwork	excavator	2	hours
		earthwork	dump truck	2	hours
18+80	End road widening/backhaul				
21+64	End mandatory temp road construction				
	Purchaser-do road development				
	Pioneering - normal	earthwork	initial	0.41	miles
	Initial blading	blading	initial	0.41	miles
	Grass seed areas disturbed during road construction (Stillwater Blend) (20 #/acre)	grass seed	STW blend	10	pounds
	Truck and trailer transport for installing CMP	transport	truck/trailer	2	hours
	Purchaser-do road maintenance				
	Final blading and surface drainage maintenance	blading	final	0.41	miles
	Grass seed running surface post final blade (Stillwater Blend) (20 #/acre)	grass seed	STW blend	14	pounds
	Hook Spur Extension (optional temp road/skid trail)				
	This will be an optional native surface extension road, and may be built as a temp road or skid trail. It will begin at STA 21+64 of Hook Spur and may be up to 568 feet in length. If built as a skid trail, no log trucks will be allowed and trail must be completely rehabilitated upon harvest unit completion. - Road width: 14-foot surface plus inboard ditch, outsloped 2%. - Road length: 568 feet extension - Road construction required including: pioneering, grass seeding (w/in 48 hours) - Centerline marked with pink flagging - Clear limits described in Attachment B in Section IX - Specifications and Drawings. - Right of way clearing and grubbing shall either windrow or pile slash.				
0+00	BOP. Begins at STA 21+64 of Hook Spur				
5+68	EOP. Would be 27+50 of Hook Spur				
	Purchaser-do road development				
	Pioneering - normal	earthwork	initial	0.11	miles
	Initial blading	blading	initial	0.11	miles
	Grass seed areas disturbed during road construction (Stillwater Blend) (20 #/acre)	grass seed	STW blend	3	pounds
	Purchaser-do road maintenance				
	Final blading and surface drainage maintenance	blading	final	0.11	miles
	Grass seed running surface post final blade (Stillwater Blend) (20 #/acre)	grass seed	STW blend	4	pounds

ATTACHMENT B

Bear Creek Spur (new temp road construction)					
	<p>This will be a native-surface temporary road beginning at STA 14+05 of the King Bear Spur.</p> <ul style="list-style-type: none"> - Road width: 14-foot surface plus inboard ditch, outsloped 2%. - Road length: 1,630 feet <p>- Road construction required including: pioneering, grass seeding (w/in 48 hours), and (possible) surface drainage installation</p> <ul style="list-style-type: none"> - Centerline marked with pink flagging - Clear limits described in Attachment B in Section IX - Specifications and Drawings. - Right of way clearing and grubbing shall either windrow or pile slash. <p>Following use: Although built as a “temporary road” for this contract, full reshaping to natural contours will not be required, other requirements in VII.A.5. are required. Additionally, road drainage features must be left in good condition and functional at the conclusion of operations.</p>				
0+00	BOP				
16+30	EOP				
	Purchaser-do road development				
	Pioneering - normal	earthwork	initial	0.31	miles
	Initial blading	blading	initial	0.31	miles
	Grass seed areas disturbed during road construction (Stillwater Blend) (20 #/acre)	grass seed	STW blend	8	pounds
	Purchaser-do road maintenance				
	Final blading and surface drainage maintenance	blading	final	0.31	miles
	Grass seed running surface post final blade (Stillwater Blend) (20 #/acre)	grass seed	STW blend	10	pounds
Slope Break Spur (optional new temp road or excavated skid trail construction)					
	<p>This will be an optional native-surface temporary road/excavated skid trail beginning at STA 16+30 of the Bear Creek Spur. If built as a skid trail, no log trucks will be allowed and trail must be completely rehabilitated upon harvest unit completion.</p> <ul style="list-style-type: none"> - Road width if temporary road: 14-foot surface plus inboard ditch, outsloped 2%. - Road length: up to 641 feet: additional 860 feet of excavated skid trail may be built, and another 311 feet of existing skid trail may be improved. Total is 641 feet of road + 1171 feet of available skid trail. <p>- Road construction required including: pioneering, grass seeding (w/in 48 hours), and (possible) surface drainage installation</p> <ul style="list-style-type: none"> - Centerline marked with pink flagging - Clear limits described in Attachment B in Section IX - Specifications and Drawings. - Right of way clearing and grubbing shall either windrow or pile slash. 				
0+00	BOP				
6+41	End optional temp road construction, begin optional excavated skid trail construction				
11+71	End of optional excavated skid trail construction				
	Purchaser-do road development				
	Pioneering - normal	earthwork	initial	0.1	miles
	Initial blading	blading	initial	0.1	miles
	Grass seed areas disturbed during road construction (Stillwater Blend) (20 #/acre)	grass seed	STW blend	3	pounds
	Purchaser-do road maintenance				
	Final blading and surface drainage maintenance	blading	final	0.1	miles
	Grass seed running surface post final blade (Stillwater Blend) (20 #/acre)	grass seed	STW blend	4	pounds

ATTACHMENT B

Old Spur					
	<p>This road is a native-surface road beginning at STA 44+54 of the Lower Whitefish Road.</p> <ul style="list-style-type: none"> - Road width: 11-16-foot surface. - Road length: 830 feet <p>- Road maintenance required including: heavy brushing, 80 feet of widening from 12 foot width to 14' + with possible backhaul or adding to road prism.</p> <ul style="list-style-type: none"> - Right of way clearing and grubbing shall either windrow or pile slash on uphill side, away from ERZ/SMZ. <p>Intermediate blading may be required.</p>				
0+00	BOP				
5+60	Begin road widening from 12' width to 14' - Add to road prism or backhaul as necessary	earthwork	excavator	2	hours
6+40	End road widening.				
8+30	EOP				
	Purchaser-do road development				
	Remove tank trap	earthwork	excavator	0.25	hours
	Heavy excavator brushing	brushing	excavator	0.16	miles
	Initial blading	blading	initial	0.16	miles
	Grass seed areas disturbed during road construction (Stillwater Blend) (20 #/acre)	grass seed	STW blend	4	pounds
	Final Purchaser-do Road Maintenance				
	Final Blading	blading	final	0.16	miles
	Grass seed running surface post final blade (Stillwater Blend) (20 #/acre)	grass seed	STW blend	5	pounds
	Reinstall tank trap	earthwork	excavator	0.25	hours
	Lower King Bear Spur (new temporary road construction)				
	<p>This will be a 14-16-foot wide native surface road with turnouts (where practical) and will begin at STA 14+05 of King Bear Spur. Slopes range from 0-13%, average about 6%.</p> <ul style="list-style-type: none"> - Road width: 14-16-foot surface plus inboard ditch, outsloped 2%. - Road length: 5,178 feet. <p>- Road construction required including: pioneering, grass seeding (w/in 48 hours), and surface drainage installation</p> <ul style="list-style-type: none"> - Centerline marked with pink flagging - Clear limits described in Attachment B in Section IX - Specifications and Drawings. - Right of way clearing and grubbing shall either windrow or pile slash. <p>Intermediate blading may be required.</p> <p>Rubber flappers and other drainage features must be functional during haul at the conclusion of operations. Otherwise, replacement will be required of the purchaser at the purchaser's expense.</p> <p>Following use: Although built as a "temporary road" for this contract, full reshaping to natural contours will not be required, other requirements in VII.A.5. are required. Additionally, road drainage features must be left in good condition and functional at the conclusion of operations.</p>				
0+00	BOP				
22+25	Install drive-through drain dip	drain dip		1	each
29+15	Install 20' flapper	rubber flapper		20	feet
		earthwork	excavator	1	hours
34+90	Install rock armored drain dip for seep (area must be dry during work) See Site 9 of Attachment E for further detail.	earthwork	excavator	1.5	hours
		rock armor	talus	2	cu.yds
35+20	Install rock armored drain dip for seep (area must be dry during work) See Site 10 of Attachment E for further detail.	earthwork	excavator	1.5	hours
		rock armor	talus	2	cu.yds
36+45	Install rock armored drain dip for seep (area must be dry during work) See Site 11 of Attachment E for further detail.	earthwork	excavator	1.5	hours
		rock armor	talus	2	cu.yds

ATTACHMENT B

50+00 to 51+00	Install 20' flapper	rubber flapper		20	feet
		earthwork	excavator	1	hours
51+78	EOP. Build truck turn-around/landing				
Purchaser-do road development					
	Pioneering	earthwork	excavator	0.98	miles
	Initial blading	blading	initial	0.98	miles
	Dump truck cost for ALL rock	earthwork	dump truck	1.5	hours
	Truck and trailer transport for flappers	transport	truck/trailer	2	hours
	Grass seed areas disturbed during road construction (Stillwater Blend) (20 #/acre)	grass seed	STW blend	24	pounds
Final Purchaser-do Road Maintenance					
	Grass seed running surface post final blade (Stillwater Blend) (20 #/acre)	grass seed	STW blend	33	pounds
	Install water bars as per Forest Officer after harvest complete, remove and re-install kelly hump	earthwork	excavator	3	hours
Bench Spur (optional new temp road or excavated skid trail construction)					
<p>This is an optional native surface temporary road/excavated skid trail that begins at STA 23+00 of the Lower King Bear Spur, and can be up to 2,745 feet in length (0.52 miles). If built, road/trail may be constructed in whole or in part.</p> <ul style="list-style-type: none"> - Road estimated to be 3/4 bench to full bench for majority of distance. - Road width: 14-16-foot surface plus inboard ditch, outsloped 2%. - Road construction would require: pioneering, grass seeding (w/in 48 hours), and surface drainage installation - Centerline marked with pink flagging - If building as temporary road, clear limits described in Attachment B in Section IX - Specifications and Drawings. - Right of way clearing and grubbing shall either windrow or pile slash. <p>Following use: If built as excavated skid trail, must be recontoured upon harvest completion. Except for the rock armored dips (at Sta 8+95 and 9+25), which will remain following project completion. If built as a temporary road, the road will remain upon harvest completion.</p>					
0+00	BOP				
8+95	Install rock armored drain dip for seep (area must be dry during work) See Site 12 of Attachment E for further detail.	earthwork	excavator	1.5	hours
		rock armor	talus	2	cu.yds
9+25	Install rock armored drain dip for seep (area must be dry during work) See Site 13 of Attachment E for further detail.	earthwork	excavator	1.5	hours
		rock armor	talus	2	cu.yds
27+46	EOP				
Purchaser-do road development					
	Pioneering- normal	earthwork	excavator	0.52	miles
	Initial blading	blading	initial	0.52	miles
	Dump truck cost for talus	earthwork	dump truck	1	hours
	Grass seed areas disturbed during road construction (Stillwater Blend) (20 #/acre)	grass seed	STW blend	13	pounds
Purchaser-do road maintenance					
	Final blading and surface drainage maintenance	blading	final	0.52	miles
	Grass seed running surface post final blade (Stillwater Blend) (20 #/acre)	grass seed	STW blend	18	pounds

ATTACHMENT B

Anchor Creek Road (existing, maintenance)					
	<p>This 14' - 16' wide road was recently improved and used during the King Hemlock and Taylor Hellroaring Timber Sales. This project only uses 3,130' of this road. Road starts at STA 45+06 (0.85 mile) of the Lower Whitefish Road. Dust abatement will be required along Lower Whitefish Road for 300 feet before the junction with Anchor Creek Road, and 300 feet after the junction, for a total of 600 feet at this location as directed by Forest Officer.</p> <p>The following work will be required before hauling:</p> <ul style="list-style-type: none"> - initial blading - ditch pulling and grass seeding of shoulders 				
0+00	BOP. Junction with Lower Whitefish Road				
0+00	Dust abatement: 600 feet total, 300 feet before and after the junction along Lower Whitefish Road	abatement	initial	600	feet
31+30	EOP				
Purchaser-do road development					
	initial blading	blading	initial	0.59	miles
Final Purchaser-do Road Maintenance					
	Final Blading	blading	final	0.59	miles
	Grass seed running surface (Stillwater Blend)	grass seed	STW blend	20	pounds
East Smith Road					
	<p>This 1.9 mile gravel-surfaced road begins at East Lakeshore Drive 3,558 feet south of the West Smith Lake Road intersection, and was constructed in 2024 and is a private easement. The road will require final blading after hauling is complete.</p> <p>Intermediate blading may be required.</p>				
0.0	BOP. Intersection with E Lakeshore Dr. No work.				
1.9	EOP. DNRC Property line. No work.				
Final Purchaser-do Road Maintenance					
	final blading	blading	initial	1.9	miles
Smith Creek Spur					
	<p>This 1,547 foot native surface road begins at approximately STA 16+65 of East Smith Road. The road will require final blading after hauling is complete.</p> <p>Intermediate blading may be required.</p>				
0.0	BOP. Intersection with East Smith Road STA 16+65. No work.				
0.3	EOP. STA 15+47 (0.3 mi). No work.				
Final Purchaser-do Road Maintenance					
	final blading	blading	initial	0.3	miles

Hockey Stick Spur					
	<p>This road is an existing road prism with native surface 14' - 16' road that starts at mile marker 1.54 of the East Smith Road and is 328 feet in length to the DNRC/Private Property line. Road extends onto Private Property but is off limits past the property line.</p> <p>The following work will be required before hauling: - initial blading - final blading and grass seeding of road surface</p>				
0+00	BOP. Starts at 1.54 mile marker of East Smith Road.				
3+28	EOP at DNRC/Private Property line. No work.				
	Purchaser-do road development				
		initial blading	blading	initial	0.1 miles
	Final Purchaser-do Road Maintenance				
		Final Blading	blading	final	0.1 miles
Hockey Spur A (new temp road construction)					
	<p>This 1,214' road is a new construction 14' wide native surface temp road that begins at STA 2+28 of Hockey Stick Spur.</p> <ul style="list-style-type: none"> - Road width: 14-foot surface plus inboard ditch, outsloped 2%. - Road length: 1,214 feet <p>- Road construction required including: pioneering, grass seeding (w/in 48 hours), and (possible) surface drainage installation - Clear limits described in Attachment B in Section IX - Specifications and Drawings. - Right of way clearing and grubbing shall either windrow or pile slash.</p> <p>Intermediate blading may be required.</p> <p>Rubber flappers and other drainage features must be functional during haul at the conclusion of operations. Otherwise, replacement will be required of the purchaser at the purchaser's expense.</p> <p>Following use: Although built as a "temporary road" for this contract, full reshaping to natural contours will not be required, other requirements in VII.A.5. are required. Additionally, road drainage features must be left in good condition and functional at the conclusion of operations.</p>				
0+00	BOP. STA 2+28 of Hockey Stick Spur.				
4+10	Install 18' Flapper	rubber flapper		18	feet
		earthwork	excavator	1	hours
6+00	Install 18' Flapper	rubber flapper		18	feet
		earthwork	excavator	1	hours
12+14	EOP - landing location				
	Purchaser-do road development				
		Pioneering	earthwork	excavator	0.23 miles
		Initial blading	blading	initial	0.23 miles
		Truck and trailer transport for flappers	transport	truck/trailer	2 hours
		Grass seed areas disturbed during road construction (Stillwater Blend) (20 #/acre)	grass seed	STW blend	6 pounds
	Final Purchaser-do Road Maintenance				
		Install water bars after harvest complete, install kelly hump	earthwork	excavator	3 hours
		Grass seed running surface post final blade (Stillwater Blend) (20 #/acre)	grass seed	STW blend	8 pounds

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West Smith Lake Road (existing, maintenance)					
	<p>This road is an existing 14-to-16-foot wide native surface road that begins at approximately 2,133 feet southeast of the Lower Whitefish Road intersection with East Lakeshore Drive. Segment to be used is 0.45 miles/2,363 feet in length</p> <p>Work required before hauling includes: - surface drainage maintenance Final blading required. Initial blading not required.</p> <p>Intermediate blading may be required.</p>				
0+00	BOP				
23+63	EOP				
	Final Purchaser-do Road Maintenance				
		Final Blading	blading	final	0.5 miles
Taylor Creek Road (existing, maintenance)					
	<p>This 16' - 18' wide open road was recently improved and used Taylor Hellroaring Timber Sales. This project only uses 1,250' of this road. Dust abatement will be required along Lower Whitefish Road for 300 feet before the junction with Taylor Creek Road, and 300 feet after the junction, for a total of 600 feet at this location as directed by Forest Officer.</p> <p>The following work will be required before hauling: - initial blading - ditch pulling and grass seeding of shoulders</p>				
0+00	BO. Junction with Lower Whitefish Road				
0+00	Dust abatement: 300 feet before and after junction along Lower Whitefish Road.	abatement	initial	600	feet
12+50	EOP				
	Purchaser-do road development				
		initial blading	blading	initial	0.2 miles
	Grass seed shoulders (Stillwater Blend) (20 #/acre)	grass seed	STW blend	6	pounds
	Final Purchaser-do Road Maintenance				
		Final Blading	blading	final	0.2 miles

IX. SPECIFICATIONS AND DRAWINGS

A. REQUIREMENTS: Any construction requirements or structures shown in the Timber Sale Contract or Attachment B shall be constructed and installed by the Purchaser to specifications in this section. Structures shall be constructed at locations shown in the Road Log and as specified or staked by the Forest Officer.

B. SPECIFICATIONS:

1. Road Construction Fabric: When road construction fabric is required the following specifications shall be met: minimum twenty mills thick with minimum trapezoid tear strength (ASTMD-1117-80) of 110 and mullen burst strength (ASTMD-3786-80) of minimum 375 psi; (e.g. Mirafi 500x or AMOCO 200208).

C. SPECIFICATION TABLES AND DRAWINGS:

GENERAL SPECIFICATIONS
GRASS SEEDING SPECIFICATIONS
GRAVEL AND END HAUL FILL MATERIAL SPECIFICATIONS
CLEAR LIMITS AND TYPICAL CROSS SECTIONS
CLEAR LIMIT DEFINITIONS FOR EXISTING ROADS
STANDARD DRAIN DIP FOR SINGLE LANE ROAD
SLASH FILTER WINDROW
CULVERT INSTALLATION REQUIREMENTS
STREAM CROSSING & WET SITE CULVERT INSTALLATION
SPECIFICATION FOR 60" X 40'L CMP AT STATION 6.66 ON LOWER WHITEFISH ROAD
RUBBER FLAPPER WATER DIVERTERS
OPEN TOP PIPE WATER DIVERTER
CONCRETE OPEN TOP CULVERT
HIGHWAY SAFETY SIGNS
WARNING SIGN SPECIFICATIONS
BRIDGE – TEMP CLT INSTALLATION
BRIDGE SITE REHABILITATION
SWITCHBACK REQUIREMENTS & SPECIFICATIONS

GENERAL SPECIFICATIONS	
<p style="text-align: center;">ALIGNMENT</p> <p>Minimum Curve Radius:</p> <p>Switchbacks: 50 Feet</p> <p>Curves: As marked on the ground</p>	<p style="text-align: center;">CUT SLOPE RATIO</p> <p>Common excavation: 1:1 Angular Rock: 3/4:1 Solid Rock: 1/4:1</p> <p>Maximum tolerance: plus 15% minus 0%</p>
<p style="text-align: center;">ROAD GRADE MAXIMUM</p> <p>Favorable: 12%</p> <p>Adverse: 8%</p> <p>Grades as shown in the Road Log</p>	<p style="text-align: center;">FILL SLOPE RATIO</p> <p>Common material: 1-1/2:1 Angular rock: 1-1/3:1</p> <p>Maximum tolerance: plus 15% minus 0%</p>
<p style="text-align: center;">DITCHES</p> <p>Width: 3 feet</p> <p>Depth: 1 foot</p> <p>Located as shown in the Road Log or as directed by the Forest Officer</p>	<p style="text-align: center;">TURNOUTS</p> <p>Length: 75 feet</p> <p>Width: 7 feet</p> <p>Located by Purchaser and approved by the Forest Officer. Spacing will be intervisible as topography allows.</p>
<p style="text-align: center;">USABLE ROAD SURFACE</p> <p>Tangents: 14 feet</p> <p>Curves: 16 feet (radius over 75 feet) 20 feet (radius under 75 feet)</p> <p>Switchbacks: 22 feet</p> <p>Slough widening: Tangents: 1 foot (in addition to usable road surface) Curves and all fills over 6 feet height: 2 feet.</p>	<p style="text-align: center;">TURNAROUNDS</p> <p>Dimensions: large enough to safely turn around a long wheel base 2-wheel-drive pickup.</p> <p>Location: at or near the end of all dead end roads as approved by the Forest Officer.</p>

GRASS SEEDING SPECIFICATIONS

A. SEED REQUIREMENTS: The Purchaser shall furnish certified noxious weed-free, pure live seed mixture(s) and fertilizer in the amounts shown in Table B-2. Total pounds mixed seed is pure live seed, corrected for germination and purity. Germination and purity tests must have been conducted within the last 6 months prior to delivery. Purchaser shall furnish documentation of germination and purity tests to the Forest Officer prior to application.

B. APPLICATION REQUIREMENTS:

1. Fertilizer and seed may be applied with a hand spreader or power blower, which adjusts to distribute seed evenly at the specified rate while limiting application to the desired area. Seed and fertilizer shall be applied separately. Mixing of seed and fertilizer is prohibited.
2. Seed and fertilizer shall be applied as listed in the following tables. In the event weather conditions or time of year are not conducive for successful seed establishment, the Forest Officer may require a different application schedule from the ones stated.
3. Application estimates are approximate figures only to be used for estimating purposes.

SEEDING CONCURRENT WITH WET CULVERT INSTALLATION.			
Areas shown in this table shall be seeded within one day of culvert installation, or as otherwise directed by the Forest Officer.			
Areas To Be Seeded	Remarks	Pounds per acre	Acres
Lower Whitefish Road	CMP installations at mile markers 2.57, 4.55, 5.65, 6.66, 10.68	20	1.45
Upper King Bear Spur	CMP installations at stations 23+00, 24+75, Optional CLT install location 5+15		
Hook Spur	CMP Installation at 2+80		
Total Pounds Mixed Seed:		29	

SEEDING CONCURRENT WITH ROAD CONSTRUCTION

Areas shown in this table shall be seeded and fertilized concurrent with initial road construction according to the following schedule:

Cut slopes shall be seeded within 7 calendar days of the day that each segment of cut slope is rough shaped with the dozer or excavator. A cut slope segment is defined as one day's work regardless of the amount of work accomplished or the length of the cut slope. Even if the driving portion of the road is not shaped, graded or drivable, cut slope seeding is still required.

FILL SLOPES, DITCHES, SHOULDERS OF THE ROAD AND OTHER DISTURBED AREAS SHALL BE SEEDDED WITHIN 15 CALENDAR DAYS AFTER COMPLETION OF EACH ROAD SEGMENT.

Road Name	Length	Seed pounds per acre	Fertilizer pounds per acre	Acres
Required Roads:				
King Bear Spur	0.26	20	N/A	0.32
Upper King Bear Spur	0.70			0.85
Hook Spur	0.41			0.50
7b South Spur	0.07			0.08
7a Spur	0.10			0.12
Lower King Bear Spur	0.98			1.19
Bear Creek Spur	0.31			0.38
Old Spur	0.16			0.19
Taylor Creek Road	0.24			0.29
Hockey Spur A	0.23			0.28
Optional Roads:				
Hook Spur Extension	0.11		0.13	
7b Flat Spur	0.11		0.13	
7b South Spur Extension	0.24		0.29	
Bench Spur	0.52		0.63	
Slope Break Spur	0.12		0.15	
Required Roads Pounds Mixed Seed:		85		
Optional Roads Pounds Mixed Seed:		28		
Total Pounds Mixed Seed:		113		
Total Pounds Fertilizer:		N/A		

<p align="center">SEEDING FOLLOWING FINAL BLADING</p> <p align="center">Areas shown in this table shall be seeded and fertilized within 15 calendar days after completion of final road blading and shaping.</p>				
Road Name	Length (mi)	Seed pounds per acre	Fertilizer pounds per acre	Acres
Required Roads:				
King Bear Road	1.07			1.82
King Bear Spur	0.26			0.44
Upper King Bear Spur	0.70			1.20
Hook Spur	0.41			0.70
7b South Spur	0.07			0.12
7a Spur	0.10			0.18
Lower King Bear Spur	0.98			1.66
Bear Creek Spur	0.31			0.52
Old Spur	0.16	20	N/A	0.27
Hockey Spur A	0.23			0.39
Anchor Creek Road	0.59			1.00
Optional Roads:				
Hook Spur Extension	0.11			0.18
7b Flat Spur	0.11			0.19
7b South Spur Extension	0.24			0.41
Bench Spur	0.50			0.88
Slope Break Spur	0.12			0.21
Required Roads Pounds Mixed Seed:		165		
Optional Roads Pounds Mixed Seed:		38		
Total Pounds Mixed Seed:		203		
Total Pounds Fertilizer:		N/A		

GRAVEL AND ROCK SPECIFICATIONS	
Material	Specifications
3/4" minus crushed gravel	Crushed gravel. Well graded. Fine fraction (minus 200 sieve) not to exceed 15%
Pit run gravel	Native gravel, well graded, with binder, compactable and not containing any rocks over 4" diameter.
Drain rock	1"- 3" diameter, screened clean rock.
<p>General Large Rock Requirements</p> <p>Stone shall be hard, durable, angular in shape, resistant to weathering and weather action, and free from overburden, soil, and organic matter. Stone must be hard enough so pieces do not fracture or break during the loading, hauling, or placement activities. Neither breadth nor thickness of stone shall be less than one-third its length. Rounded stone or boulders from a streambed will not be accepted unless authorized by the State.</p>	
Rock armor	Large rock with most sizes ranging from 6" to 12" diameter, used to armor fill slopes and catch basins.
Talus rock	Large rock of variable sizes used as load-bearing fill or drainage rock in soft areas or French drains, as approved by Forest Officer.
Energy dissipators	Large rock 18-24" diameter placed in streams at culvert outlets.

SPECIFICATION DRAWINGS

Clear Limits and Typical Cross Sections

CLEARTPK.WPG

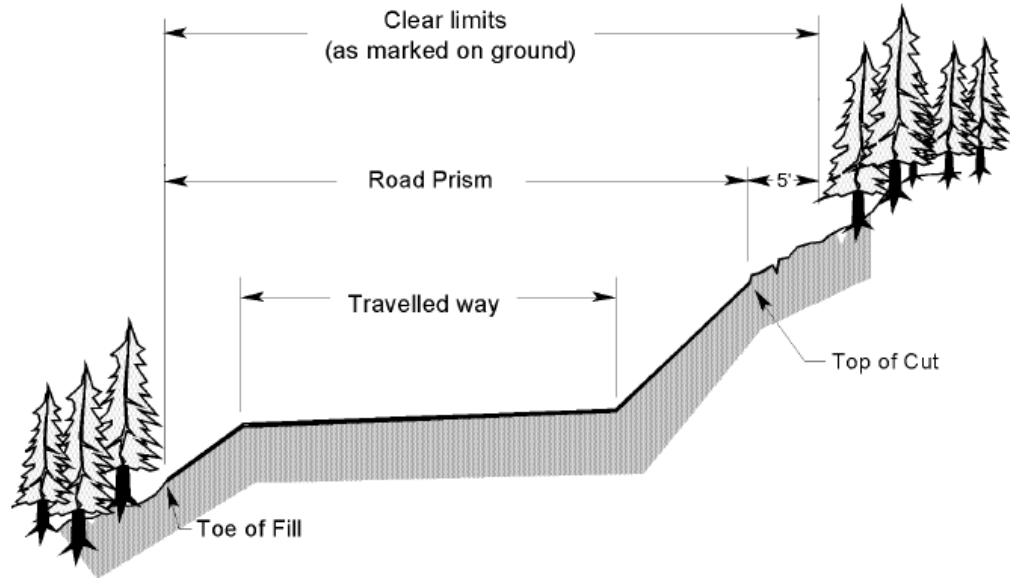


Figure I: Clear limits for New Construction

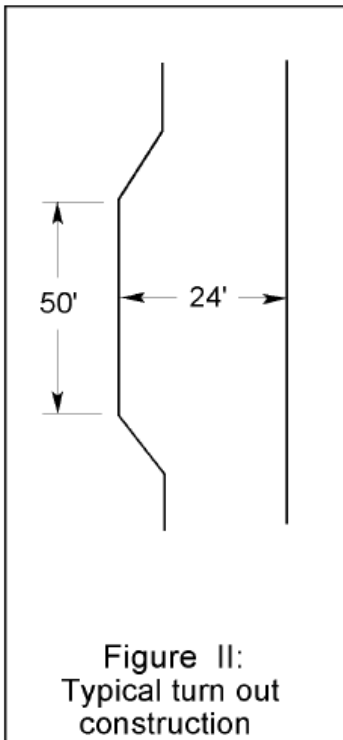


Figure II:
Typical turn out
construction

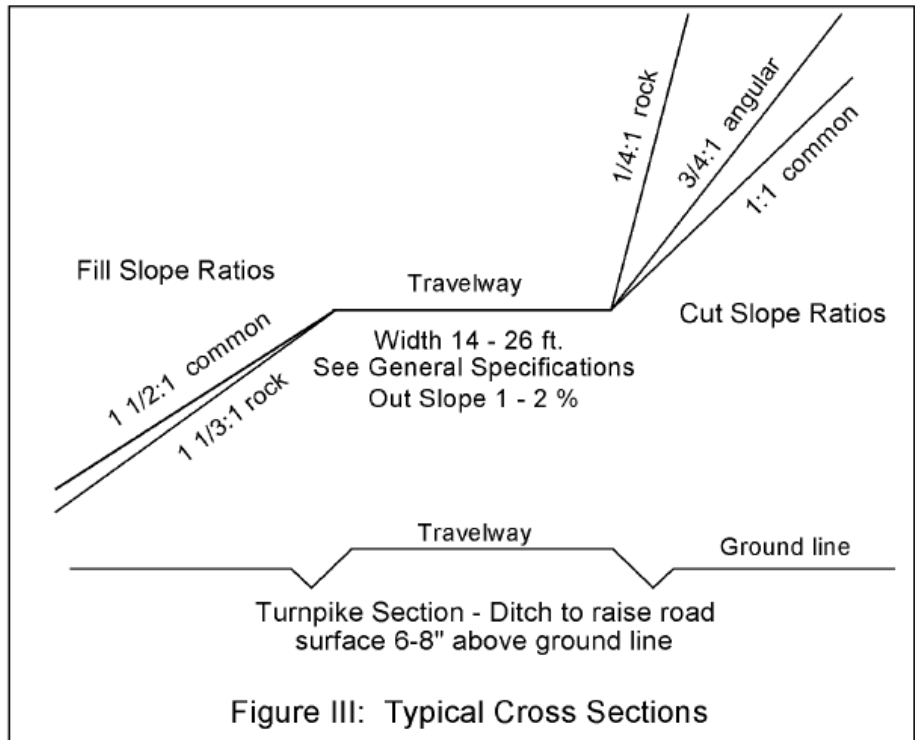
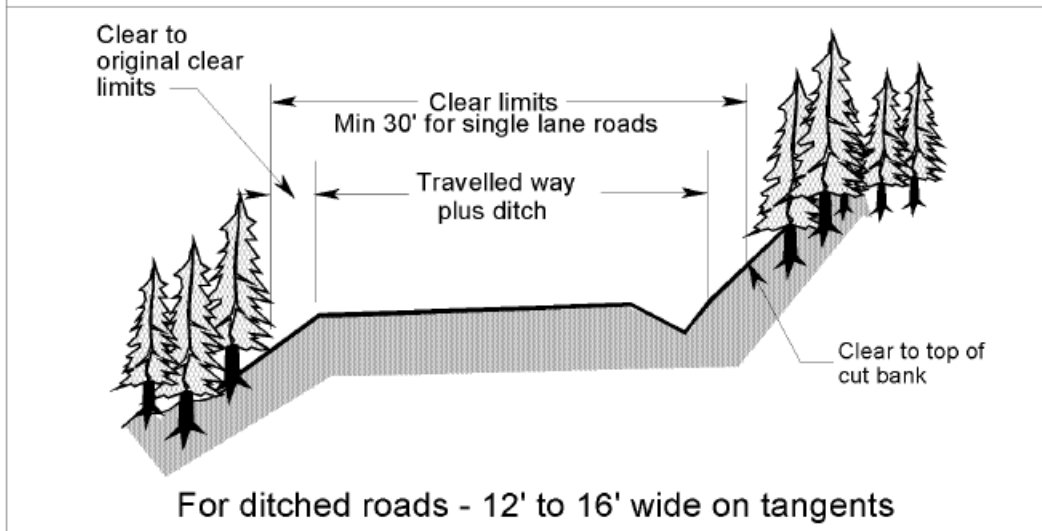
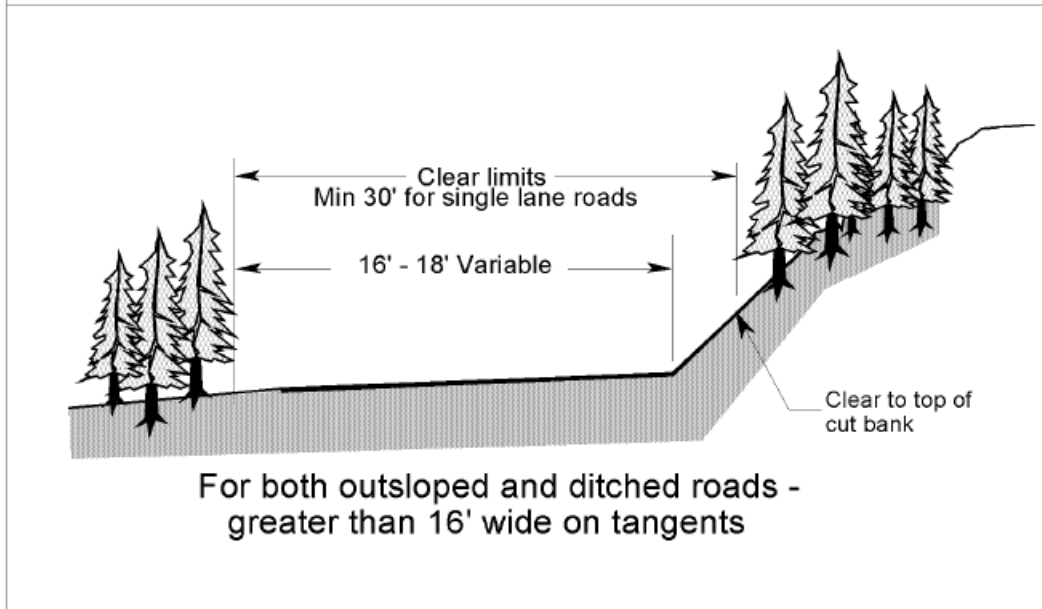
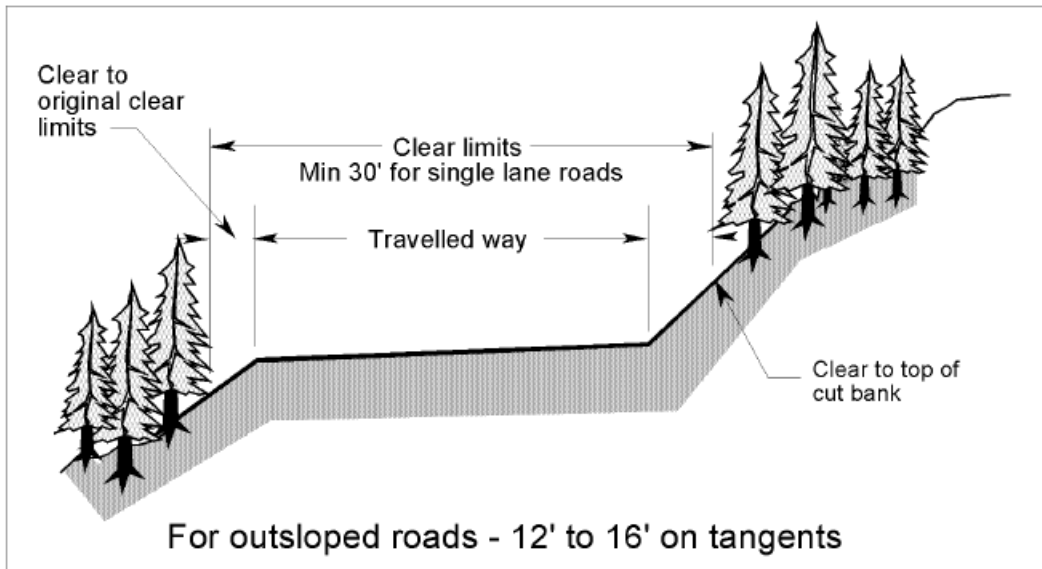
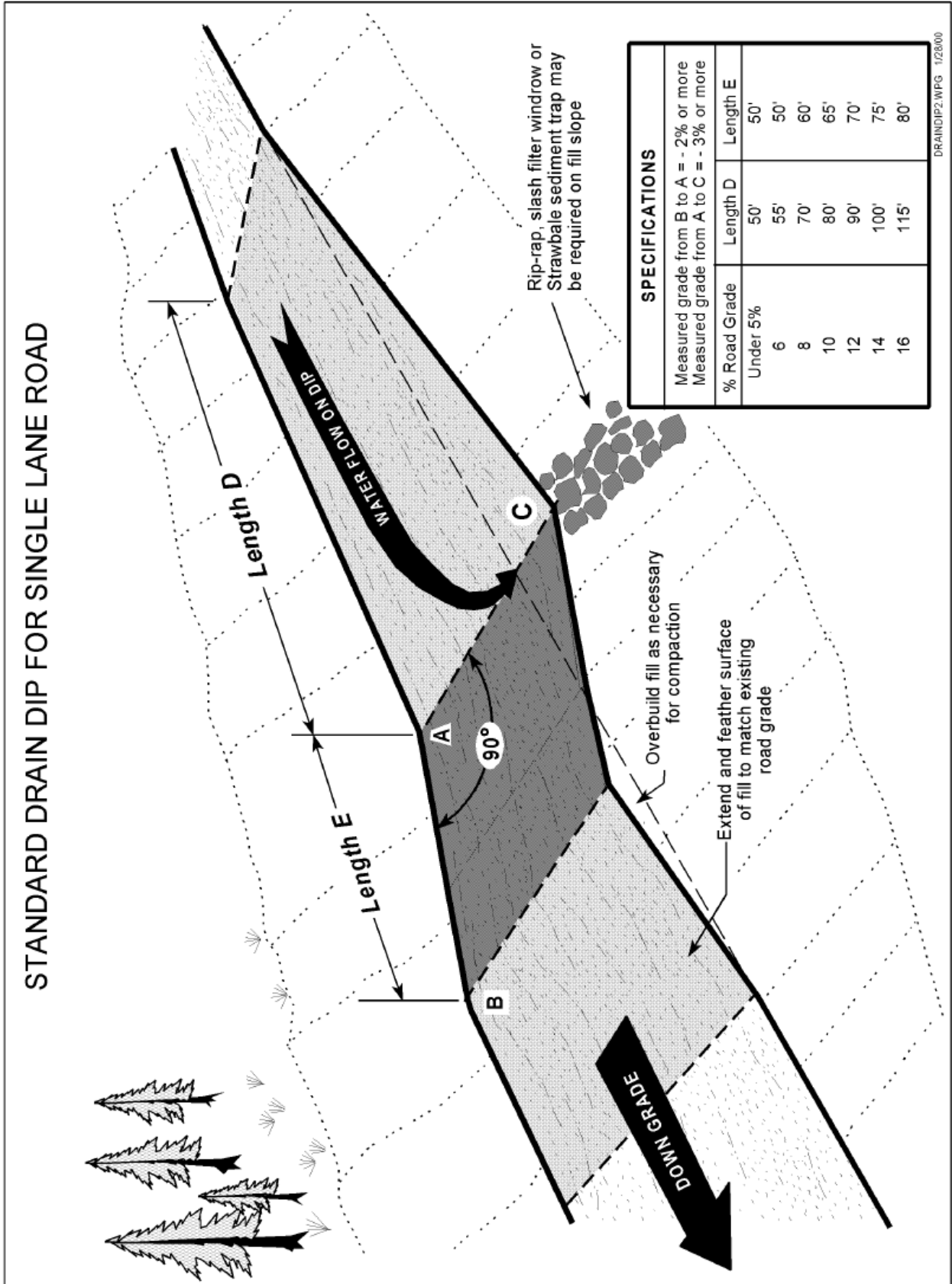


Figure III: Typical Cross Sections

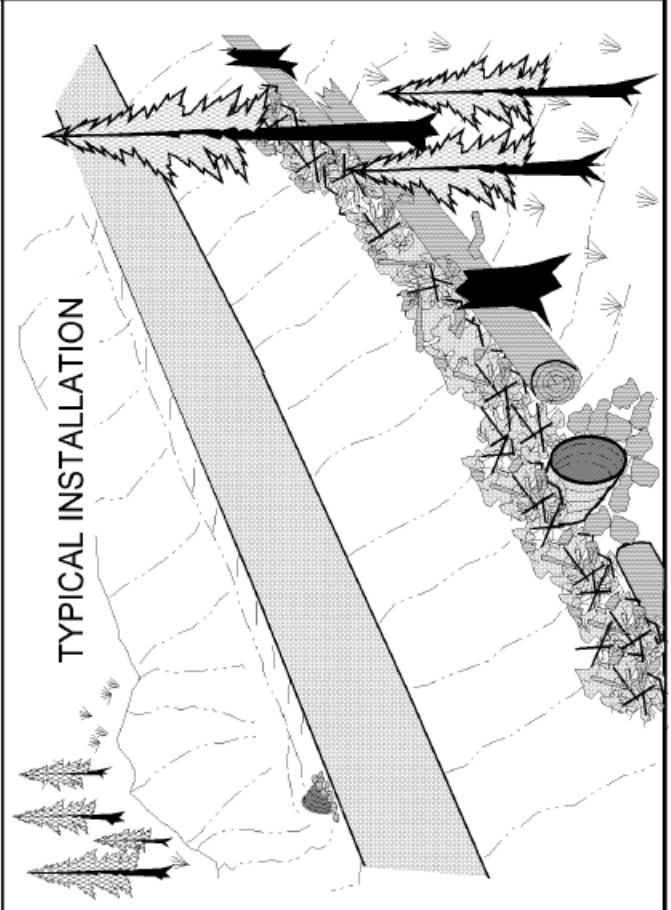
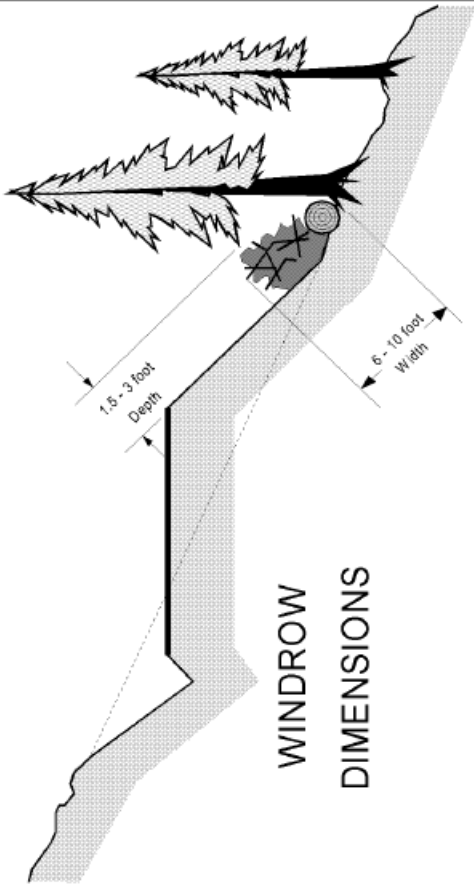
CLEAR LIMIT DEFINITIONS FOR EXISTING ROADS





SLASH FILTER WINDROW SPECIFICATIONS

- Materials must be stockpiled prior to construction of windrows.
- Cull logs must be anchored in place against undisturbed stumps, large rocks or trees at the toe of the fill.
- Slash must be placed above the logs with a backhoe and tamped into place with the bucket.
- Slash should be tamped so it is embedded approximately 6 inches into the fill surface to prevent water from running under the windrow.
- Slash, limbs and tops must be smaller than 12 feet long and 6 inches diameter. Stumps and root wads may not be used.
- Anchor logs must be larger than 16 inches diameter. Reasonably sound cull logs may be used.
- Windrows shall not interfere with the functioning of drainage structures or block stream channels.
- All locations will be staked or flagged by the Forest Officer.
- When installing windrows over the top of culverts, pipe length must be increased by 3 - 4 feet to accommodate windrow placement.



CULVERT REQUIREMENTS

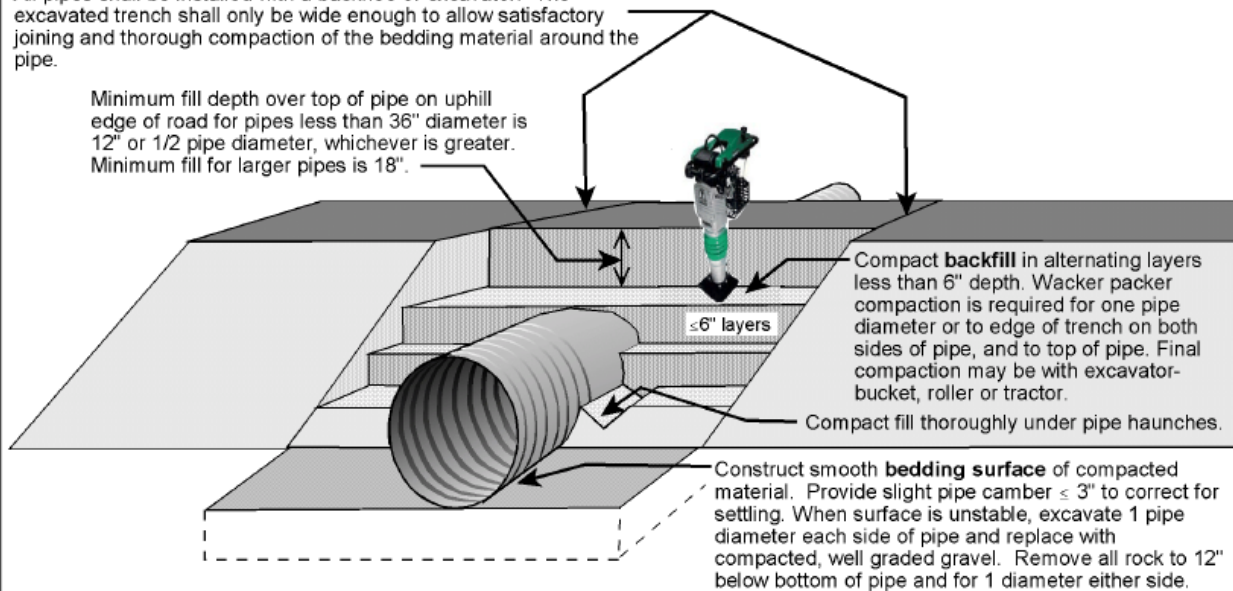
ATTACHMENT B

- ▶ Exact locations for pipes shall be determined by the Forest Officer after right of way has been cleared.
- ▶ Backfill shall be select, sorted material. Gravel may be required in road log. If native backfill is used, rocks over 3 inches diameter, organic or frozen materials are not permitted.
- ▶ Pipe shall be protected by adequate fill before equipment is allowed to cross.
- ▶ Pipe that is damaged or improperly installed shall be repaired or replaced at purchaser's expense.
- ▶ The Forest Officer must be contacted two days before any culvert installation and must be present for any wet site culvert installation.
- ▶ Wet site installations will have additional requirements for timing, erosion control and management.

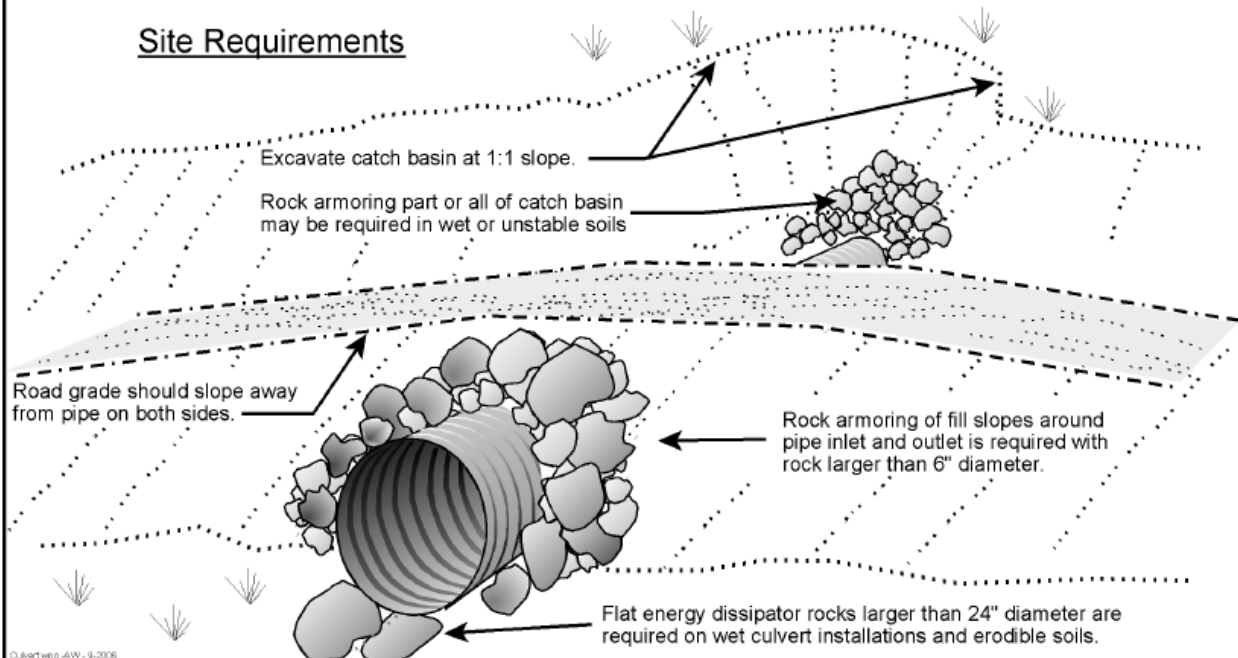
Installation Requirements

All pipes shall be installed with a backhoe or excavator. The excavated trench shall only be wide enough to allow satisfactory joining and thorough compaction of the bedding material around the pipe.

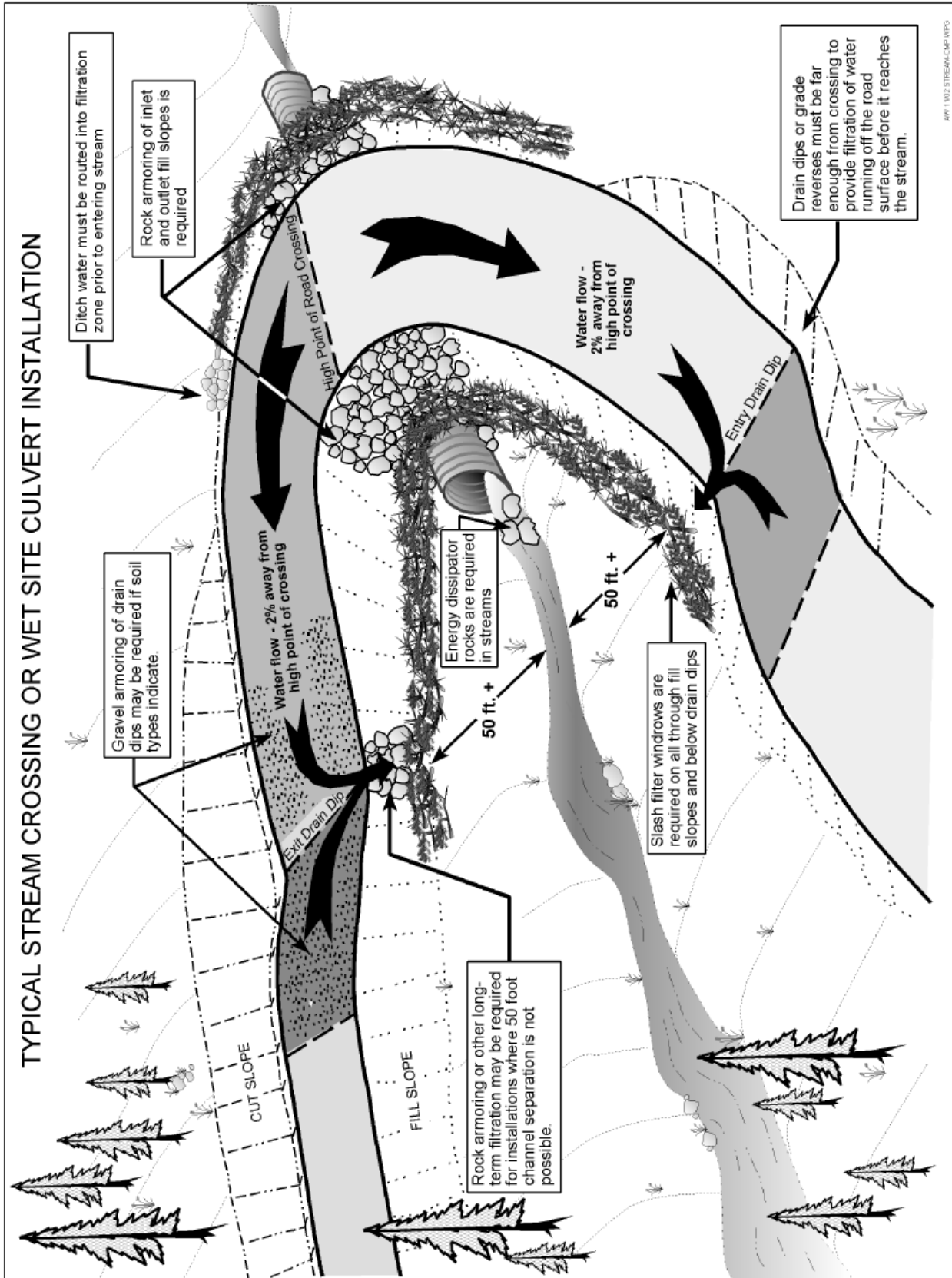
Minimum fill depth over top of pipe on uphill edge of road for pipes less than 36" diameter is 12" or 1/2 pipe diameter, whichever is greater.
Minimum fill for larger pipes is 18".



Site Requirements

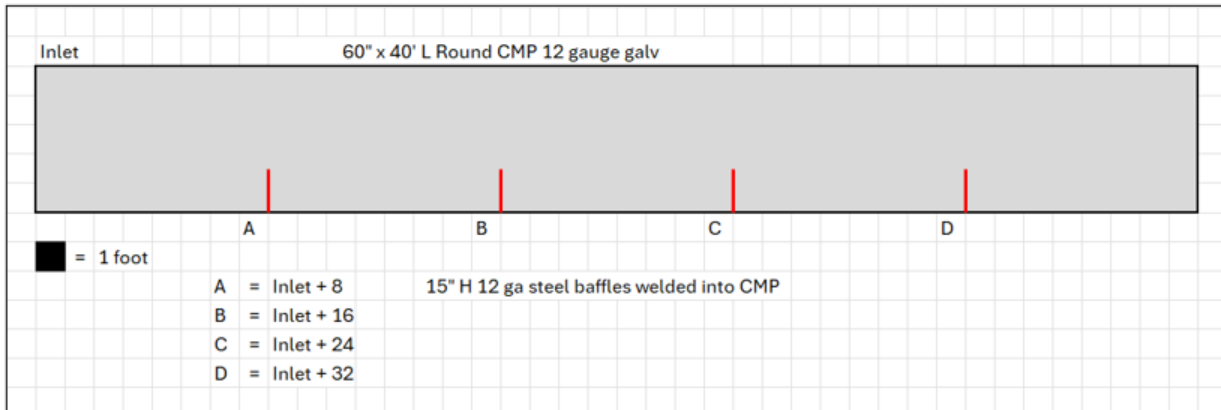


Culvert.jpg -AVI - 9-2006

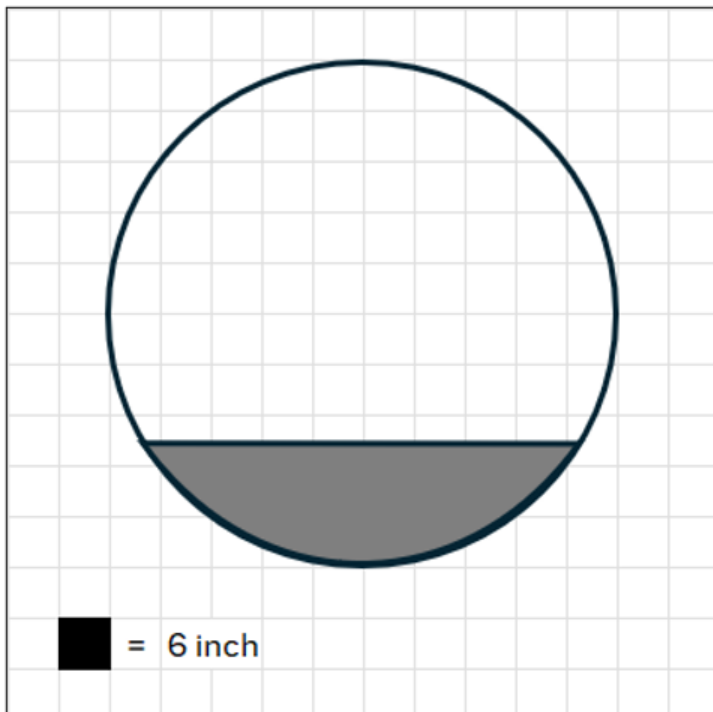


SPECIFICATION FOR 60" X 40' L CMP AT STATION 6.66 OF LOWER WHITEFISH ROAD

This 60" x 40' CMP (12 Gauge) must include four metal baffles permanently welded to inside the pipe floor and wall. Each baffle must be 15" deep from the bottom of the pipe and spaced at 8-foot intervals from the pipe inlet.



Side view 60" x 40' L CMP at STA 6.66, red lines indicate 15" baffle spacing

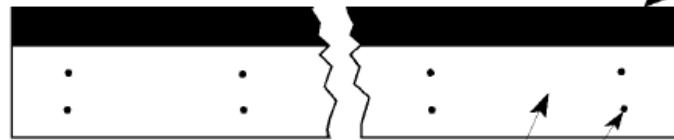


Cross section view of 15" H baffles to be welded into CMP

CONVEYOR BELT WATER DIVERTER (Rubber Flapper)

ATTACHMENT B

CONSTRUCTION



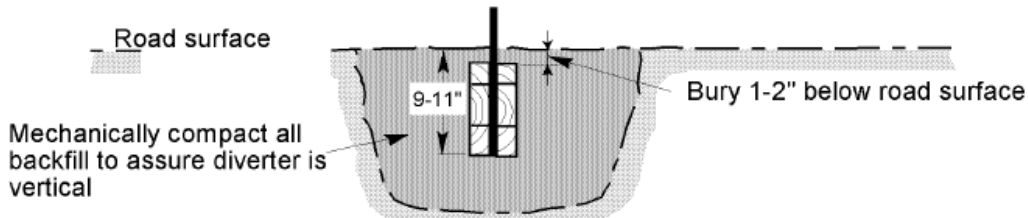
7/16" min. X 12" Rubber Belt. Goodyear Plyon plus 375, nylon cord, 4200 psi breaking strength min. or equivalent



Lumber shall be 2 x 8, #2 and better FDN grade (PWF) pressure treated, minimum .60 CCA

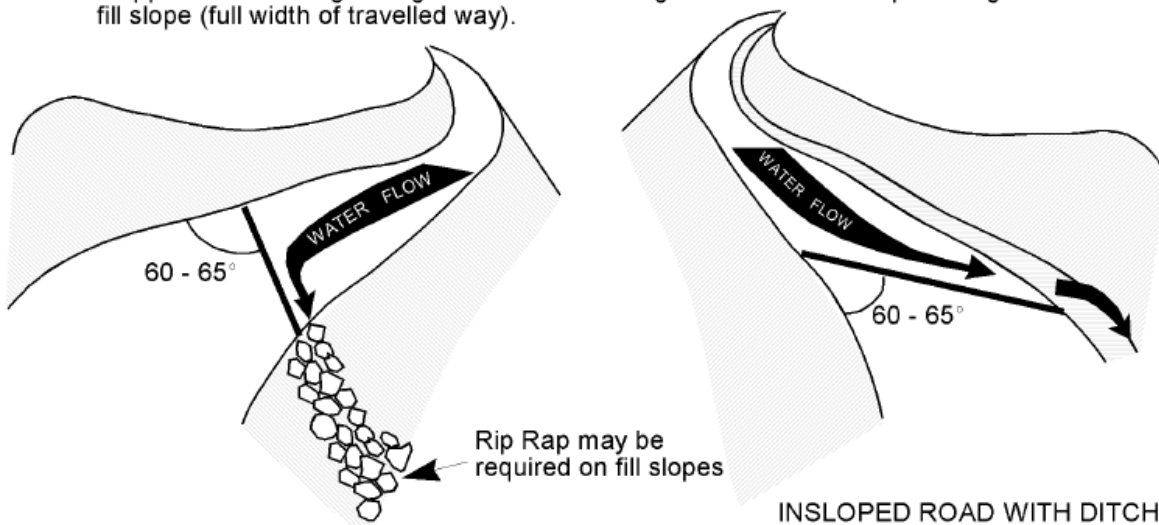
20 d Galvanized Nails at 18" c - c, clinch ends

INSTALLATION DETAILS



Backfill will be readily compactible material free of large rocks, frozen lumps, chunks of clay, organic material or other objectionable material. Where unsuitable foundation material is encountered the material will be excavated one foot below the foundation grade and one foot either side of the diverter. The unsuitable material will be replaced with selected granular material.

Flapper must be long enough to extend from edge of ditch or cut slope to edge of fill slope (full width of travelled way).



OUTSLOPED ROAD WITHOUT DITCH

INSLOPED ROAD WITH DITCH

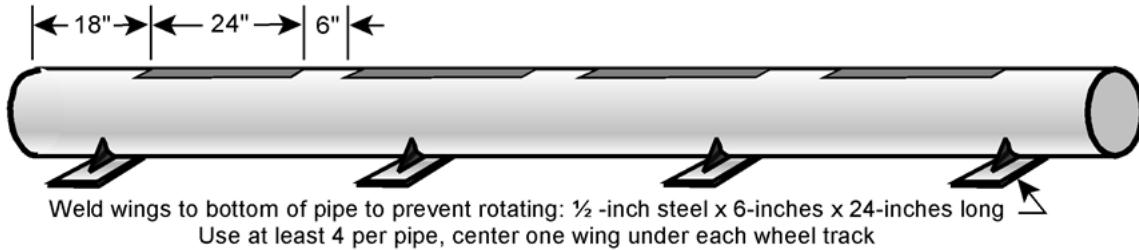
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OPEN TOP PIPE WATER DIVERTER (Well Casing)

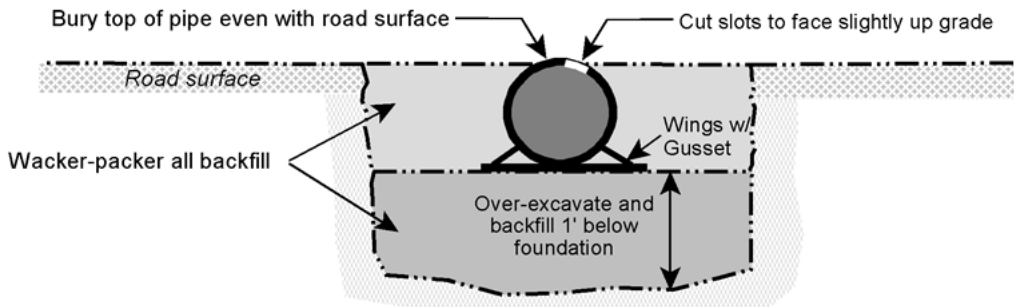
ATTACHMENT B

CONSTRUCTION

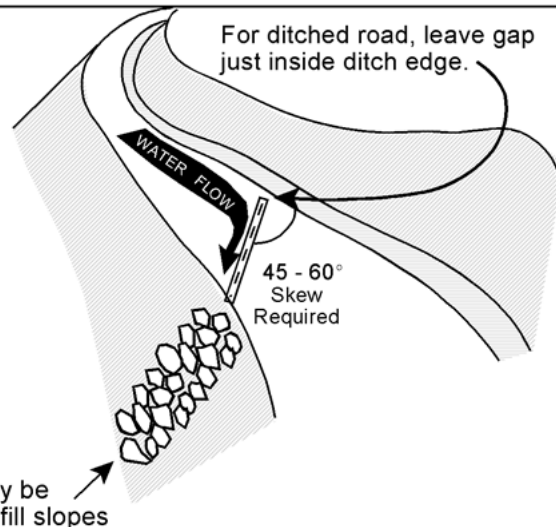
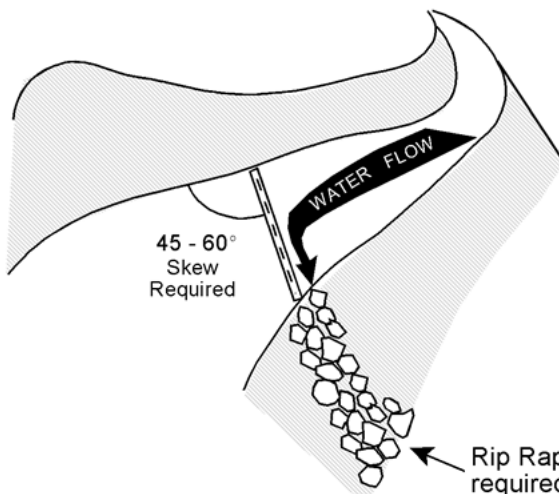
Construct from 8-inch diameter schedule 40 steel pipe. Pipe must be long enough to extend the full width of the travelled way -from edge of cut slope, or just inside ditch, to just beyond edge of fill slope, including skew. Cut 24-inch long x 3-inch wide slots in top of pipe. Leave 6-inch long solids between slots, and 18-inch long solid at each end. Slots may be field-cut following pipe bedding.



INSTALLATION DETAILS



Pipe must be installed in a trench with a backhoe or excavator. Over-excavate the trench to one foot below foundation grade, and to sufficient width to allow vibratory compaction on both sides of the pipe. Level to base of pipe with compacted backfill. Set pipe in place and continue backfill and compaction to road surface. All backfill will be graded, readily compactible select gravel with binder. All compaction must be done with a mechanical vibratory compactor (wacker packer). Equivalent local material may be used only if approved by the Forest Officer.



OUTSLOPED ROAD WITHOUT DITCH

ROAD WITH DITCH

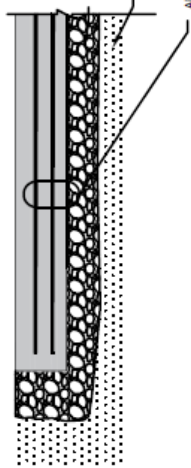
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CONCRETE OPEN TOP CULVERT

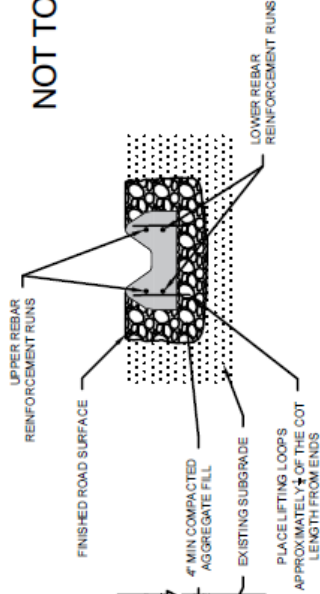
NOTES:

1. METAL W-BEAM GUARD RAILS WITH END CAPS WILL BE USED TO CAST CONCRETE OPEN TOPS (COT).
2. CONCRETE USED SHALL HAVE A MINIMUM 4,000 PSI COMPRESSIVE STRENGTH.
3. COT SECTIONS SHALL BE JOINED BY GROUT OR OTHER CO APPROVED METHOD.
4. COT SHALL BE BEDDED WITH A MINIMUM OF 4" COMPACTED $\frac{3}{4}$ MINUS CRUSHED AGGREGATE.
5. COT WILL BE FITTED TO EXISTING ROAD SLOPE AT A 45° ANGLE FROM ROADWAY EDGE UNLESS OTHERWISE SPECIFIED BY CO.
6. REINFORCEMENT SHALL BE COMPRISED OF #4 GLASS REINFORCED POLYMER (GRFP) BAR WITH A MINIMUM TENSILE STRENGTH OF 128 KSI.
7. INSTALL LIFTING LOOPS OR OTHER LIFTING DEVICE AT $\frac{1}{4}$ OF THE COT LENGTH FROM ENDS. THE RATED SAFE WORKING LOAD OF EACH INDIVIDUAL LIFTING DEVICE MUST EXCEED 1,000 LBS. EACH LOOP MUST BE INSTALLED TO THE MANUFACTURER APPROVED DEPTH. THE LIFTING ANGLE FROM THE COT TO THE LIFTING STRAND SHOULD NOT EXCEED 60 DEGREES.
8. LIFTING LOOPS WILL BE CUT UPON COT PLACEMENT CONTRACTOR SHALL PROTECT COT DURING TRANSPORT AND INSTALLATION. DAMAGED COT MUST BE REPAIRED OR REPLACED PER CO APPROVAL BEFORE INSTALLATION.
9. PLACE CARBONITE OR SIMILAR OBJECT MARKER POSTS IN GROUND TO MARK BOTH ENDS OF COT.

SIDE VIEW

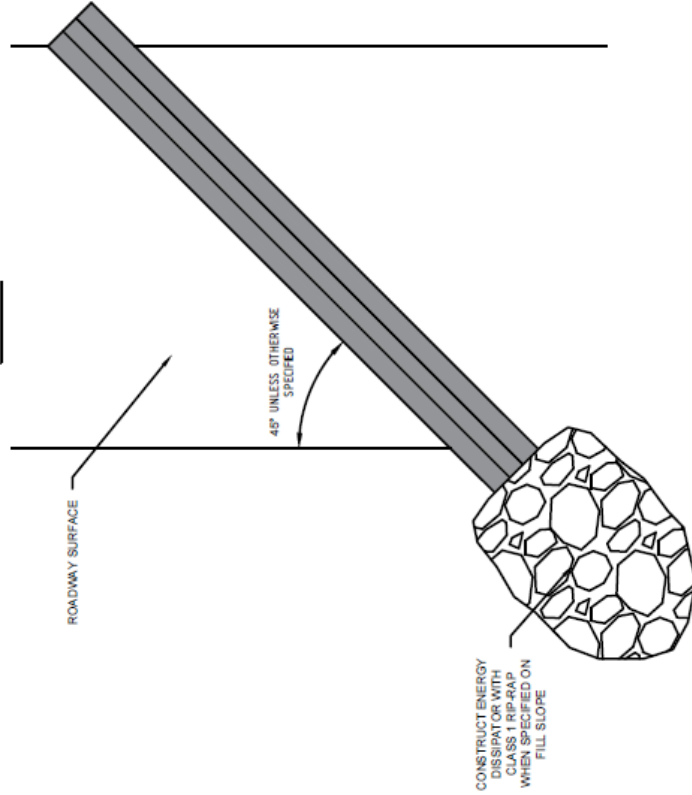


END VIEW

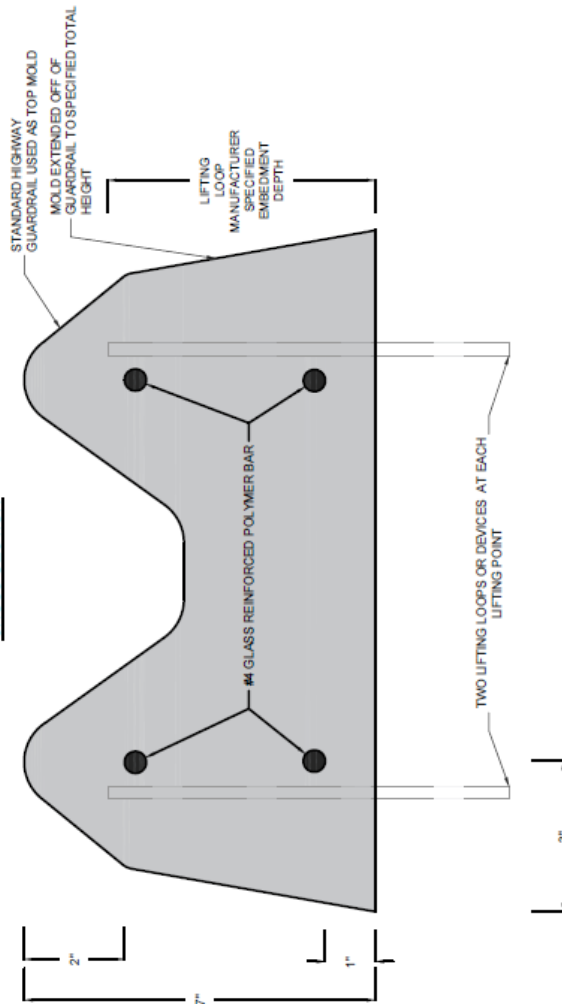


NOT TO SCALE

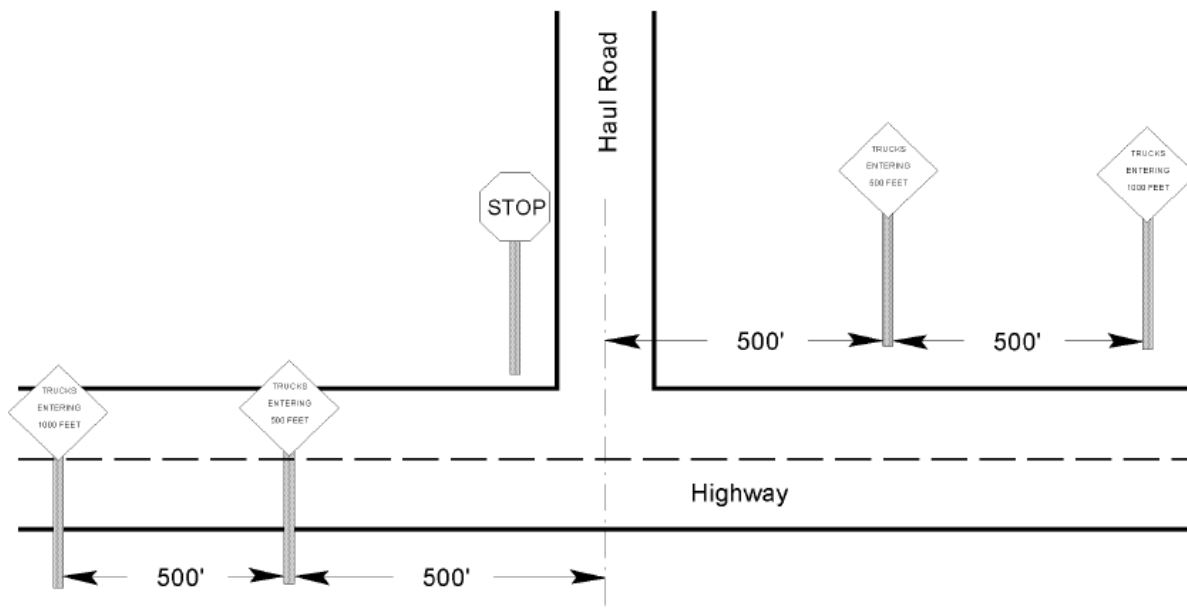
TOP VIEW



CROSS-SECTION



HIGHWAY SAFETY SIGNS



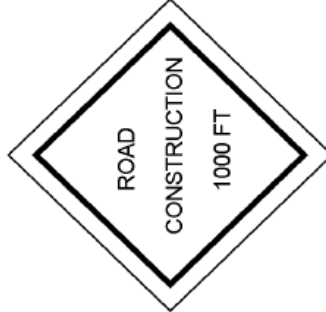
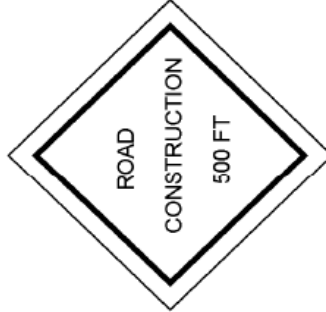
Materials Required

- 1 each 4"x4"x10' full pressure treated wood post.
- 4 each 4"x4"x14' full pressure treated wood post.
- 1 each 30"x30" STOP sign, aluminum, octagon, white letters on red.
- 2 each 36"x36" TRUCKS ENTERING 500' sign, aluminum, diamond, black letters on orange, center hinged.
- 2 each 36"x36" TRUCKS ENTERING 1000' sign, aluminum, diamond, black letters on orange, center hinged.
- Mounting hardware as required.

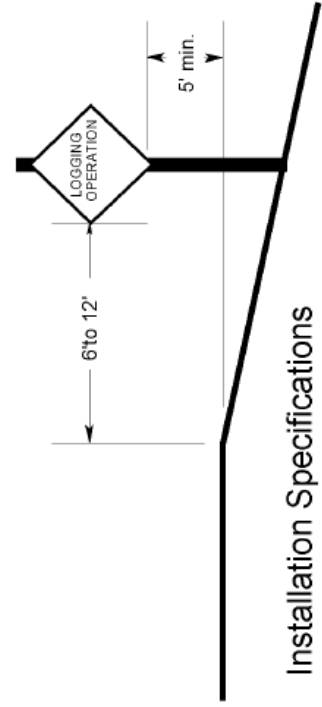
Specifications

1. All signs shall have reflectorized background and shall meet all specifications as per Manual on Uniform Traffic Control Devices.
2. All signs shall be new condition.
3. Bottom of sign shall be 5' vertical as measured from the roadway surface.
4. Lateral clearance of "TRUCKS ENTERING" signs shall be 10' as measured from the edge of pavement to the edge of sign.

Warning Sign Specifications

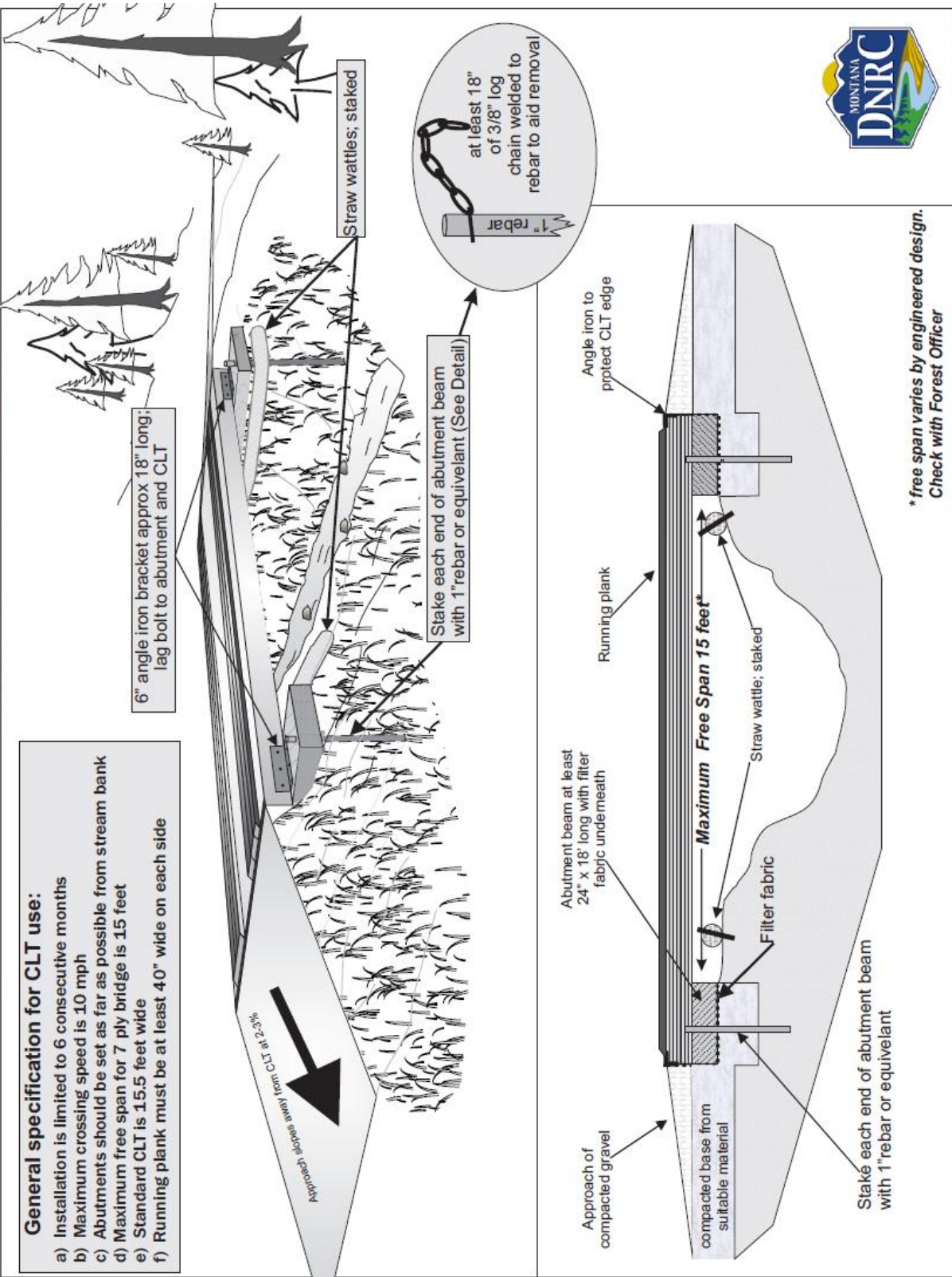


Size: 30"x 30"
 Shape: Diamond
 Color: Diamond: Orange and Black. Barricade: Red and Silver
 Lettering: Minimum 4 inch letters. Standard Alphabet Series C. 1/2 inch Border.
 Reflective Background Required
 Mounting: Posts or portable sign stands, clearly visible to drivers. Do not mount on trees.



Installation Specifications

Typical Stream Crossing Using Temporary CLT Bridge



- General specification for CLT use:**
- a) Installation is limited to 6 consecutive months
 - b) Maximum crossing speed is 10 mph
 - c) Abutments should be set as far as possible from stream bank
 - d) Maximum free span for 7 ply bridge is 15 feet
 - e) Standard CLT is 15.5 feet wide
 - f) Running plank must be at least 40" wide on each side

* free span varies by engineered design.
Check with Forest Officer

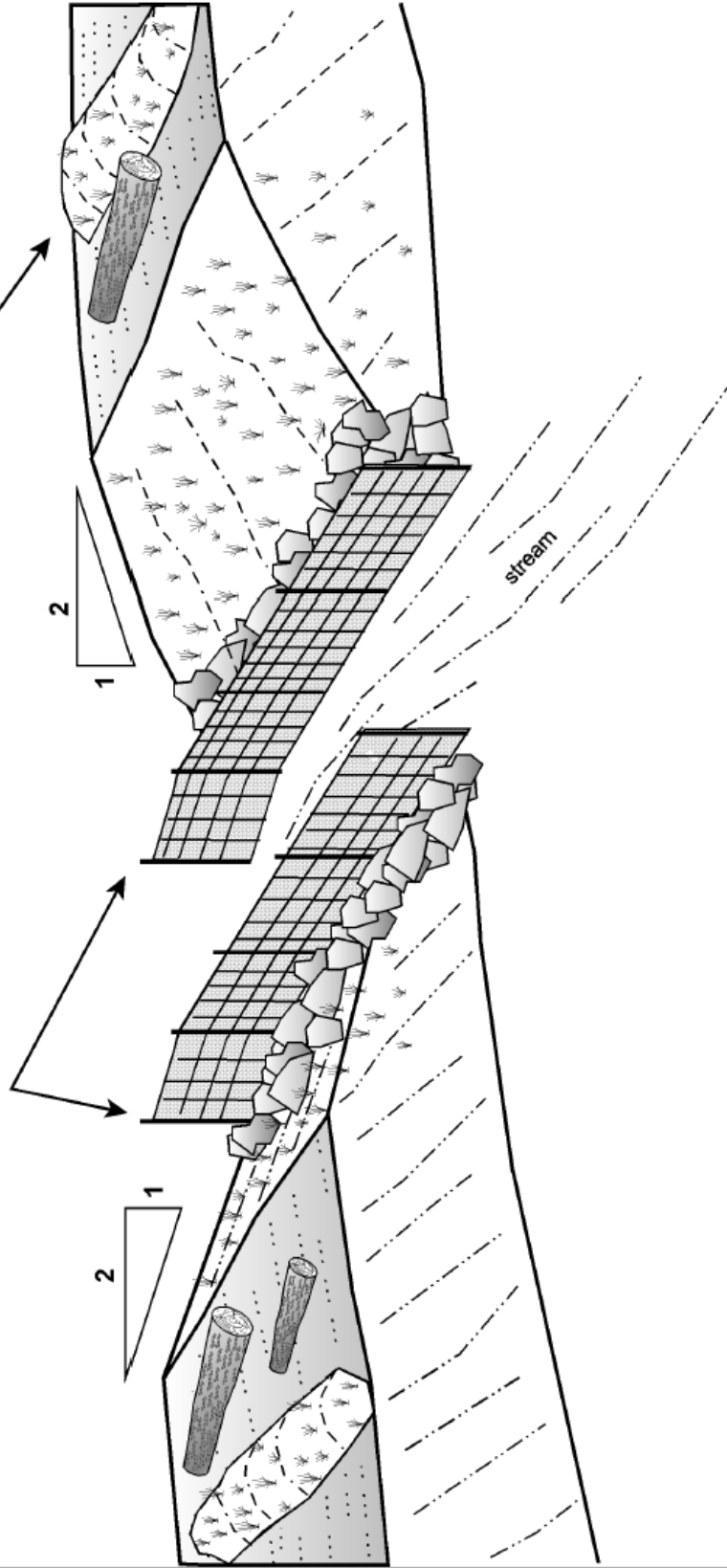


BRIDGE SITE REHABILITATION

Remove bridge materials and dispose outside of SMZ at a location directed by the Forest Officer. Solid logs may be spread on the road surface for stability and to aid in closure.

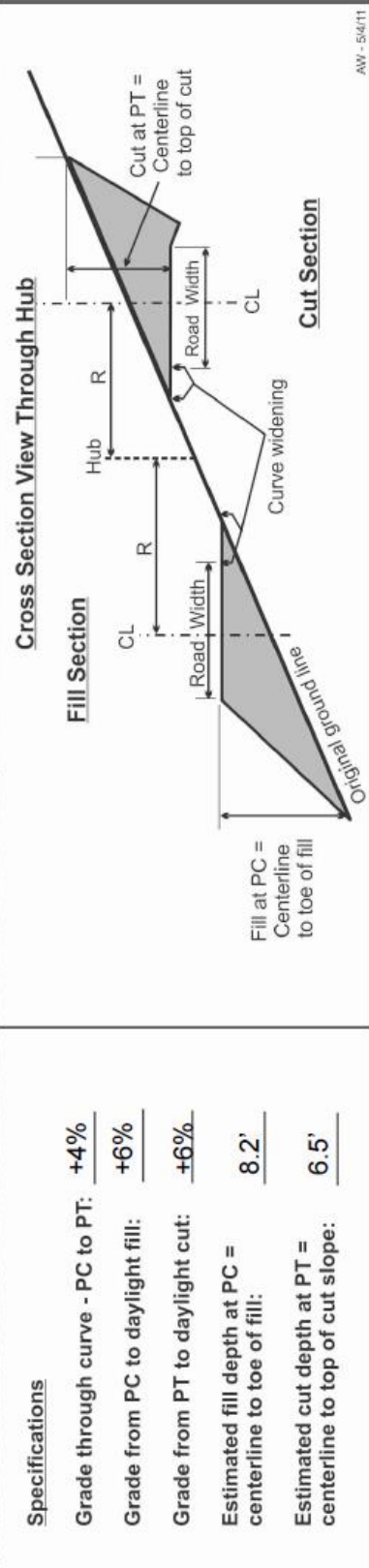
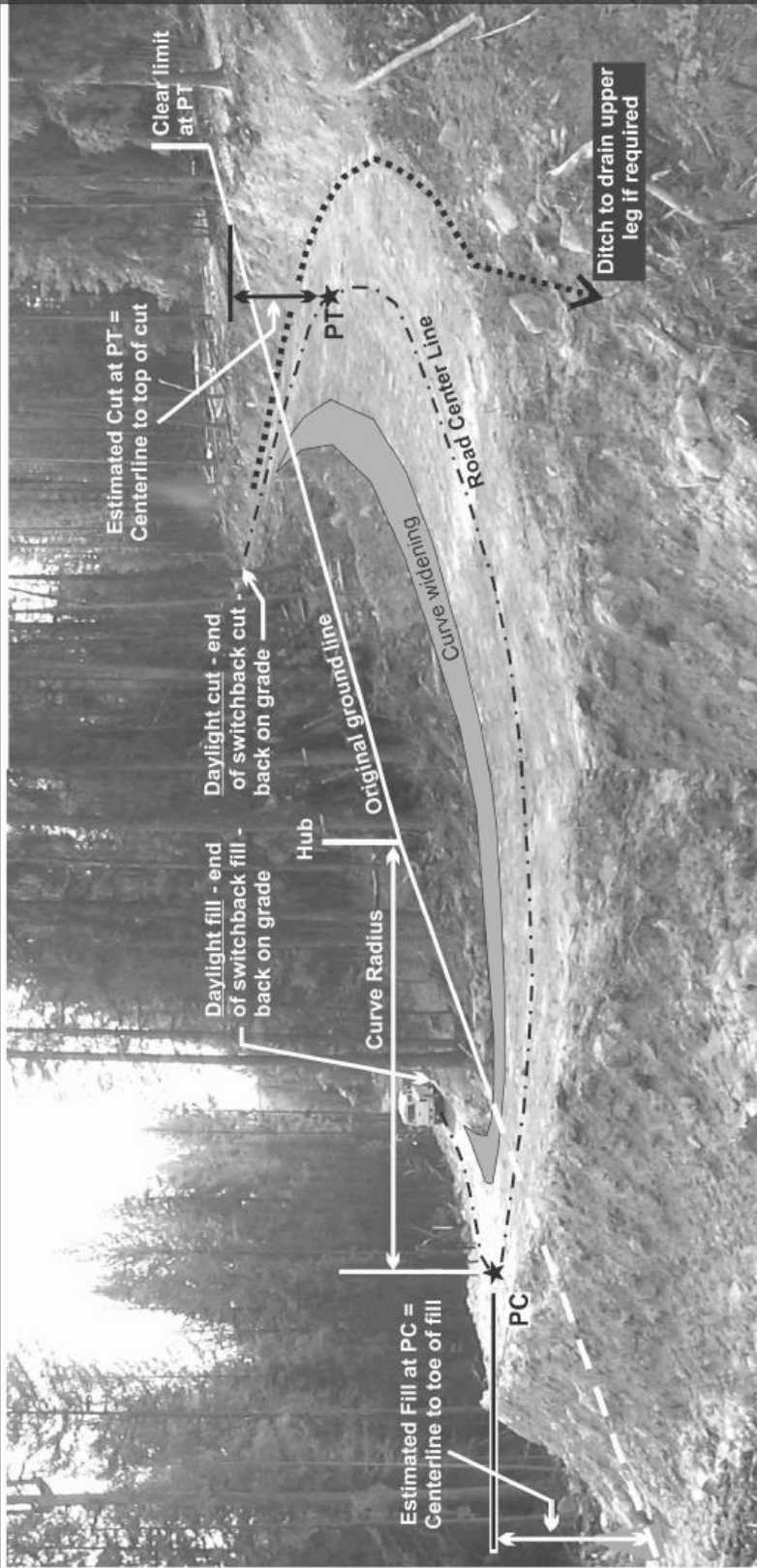
Build sediment fence at edge of stream before crib logs are removed. After bridge removal and resploping, armor with talus above fence for 5 feet, then seed the remaining exposed fill slope.

Lay back approach fill at 2:1 ratio. Dispose of excess material as berm to close road



SWITCHBACK REQUIREMENTS

Attachment B



Specifications

- Grade through curve - PC to PT: +4%
- Grade from PC to daylight fill: +6%
- Grade from PT to daylight cut: +6%
- Estimated fill depth at PC = centerline to toe of fill: 8.2'
- Estimated cut depth at PT = centerline to top of cut slope: 6.5'

FOREST FIRE RULES & REGULATIONS

These rules apply to all activities on all classified forest lands within Montana during the legal Forest Fire Season, including any extension thereof (see 77-5-103(3), 76-11-101, 76-13-102(7), and 76-13-109 MCA). Reference also ARM 36.10.119 through 132.

Related State statute numbers are provided as a reference.

RULE I - DEBRIS BURNING

1. The person conducting the burn shall obtain written authorization from the recognized fire protection agency before igniting any open fire during the legal forest fire season (required by 76-13-121 MCA). The recognized fire protection agency may deny, restrict, or rescind any authorization by notifying the person conducting the burn.
2. All burning must comply with the Department of Environmental Quality or State/county/local open burning regulations.
3. Written authorization is not required for campfires.

RULE II - CAMPFIRES

1. Campfires cannot be left unattended and must be completely extinguished (see 76-13-123 MCA).
2. All campfires must be constructed in cleared or bare areas, and not allowed to spread beyond the established ring, pit, grate, or container.
3. Anyone igniting a campfire is required to have fire tools listed in Rule VIII (4).

RULE III - RAILROADS AND POWERLINES

Railroad and powerline companies are required to prepare and annually update working agreements with recognized fire protection agencies. These agreements must stress safety and fire response procedures; and identify, remove, prevent, modify, abate, or correct forest fire hazards and risks associated with railroad and powerline company operations (see 69-14-721 MCA).

RULE IV - EQUIPMENT

1. All internal combustion engines must be equipped with an approved and effective spark-arresting system, as established in the National Wildfire Coordinating Group's Spark Arrester Guides. Spark-arresting devices must be marked, properly installed, and maintained in accordance with the Guides. The following vehicles are exempt:
 - a. automobiles and light trucks of less than 23,000 GVW when all exhaust gases pass through a properly installed and maintained exhaust system, baffle-type muffler, and tailpipe. Vehicles with glass-pack mufflers do not qualify for the exemption.
 - b. heavy-duty trucks of 23,000 GVW or greater, with a muffler and vertical stack exhaust system extending

above the cab.

- c. vehicles with other spark-arresting systems providing equal or increased effectiveness. Such vehicles must be inspected and have written authorization from the recognized fire protection agency.
2. Equipment used for commercial, ranching, or industrial activities must meet the fire extinguisher and tool requirements listed in Rule VIII (5).

RULE V - FLAMING AND GLOWING SUBSTANCES

1. All flaming and glowing substances, including but not limited to, lighted cigarettes, cigars, ashes, and matches, must be extinguished before being discarded (see 76-13-124 MCA).
2. Smoking is allowed only at areas free of flammable or combustible material. Examples of these areas include a graveled road or an enclosed vehicle.

RULE VI - FIREWORKS

Use of fireworks is prohibited on all classified forest lands unless written authorization is obtained from the recognized fire protection agency. Authorization will only be considered between June 24 and July 5, inclusive, to coincide with the legal dates for the sale of fireworks in Montana (see 50-37-106 MCA).

RULE VII - WILDLAND/URBAN INTERFACE

1. County governments without subdivision wild-fire protection standards are encouraged to establish standards for all new subdivisions by January 1, 2000.
2. The Fire Protection Guidelines for Wildland/Residential Interface Development (DSL/DOJ, 1993) is available for use to assist counties in the development of standards.

RULE VIII - FIRE EXTINGUISHERS AND FIREFIGHTING TOOLS

1. Chainsaw operators shall carry a fully charged and operable fire extinguisher, minimum-capacity 8-ounce liquid or 1-pound dry chemical, with a 4BC or higher rating.
2. Vehicles and equipment, mobile or stationary, with a combustion engine/motor used for commercial, ranching, or industrial activities must have one operable, dry-chemical fire

extinguisher with a minimum 2-1/2 -pound capacity and 4BC or higher rating.

3. Chainsaw operators shall maintain one usable shovel at chainsaw-fueling sites.
4. All persons or parties igniting a campfire shall have one usable shovel and bucket. Persons igniting a barbecue need not have a shovel or bucket if the ashes are not removed from the container and the ashes or container are not placed on or near combustible material.
5. All commercial, ranching, or industrial activities must have:
 - a. one usable shovel or pulaski with each vehicle and equipment with an internal combustion engine/motor, mobile or stationary.
 - b. one backpack pump with each vehicle and with any equipment, used off road, mobile or stationary, with an internal combustion engine/motor, that cannot be used to build fireline and is being operated on combustible material.
6. Other types of firefighting tools that provide increased efficiency or effectiveness may be substituted by written authorization from the recognized fire-protection agency. For example, a [combi] firefighting tool may be substituted for a shovel or pulaski.

RULE IX - FOREST ACTIVITY RESTRICTIONS

In areas designated by public proclamation by the administrator, division of forestry, as areas of high fire hazard, the administrator may request all persons, firms, or corporations present or engaged in any activity in the areas to voluntarily cease operations or to adjust working hours to less critical periods of the day. In the event such a request is refused, the administrator may issue a written order directing compliance.

RULE X - FOREST CLOSURE

1. During periods of dangerous fire conditions, no person may enter or be upon those forest lands designated by public proclamation by the governor of the state of Montana as areas of dangerous fire hazard except under written permit issued by a recognized agency.
2. Permits to enter upon such areas during the closure may be issued by the recognized agency upon a showing of real need by the applicant. Permits may be issued to those persons having actual residence as a permanent or principal place of abode in the forest lands designated or to persons engaged in non-fire hazardous employment.
3. However, no permit may be required of persons engaged in either firefighting, fire prevention, or law enforcement who are engaged in official business.

RULE XI - CORRECTION OF HAZARD AND UNUSUAL CIRCUMSTANCES OR EVENTS

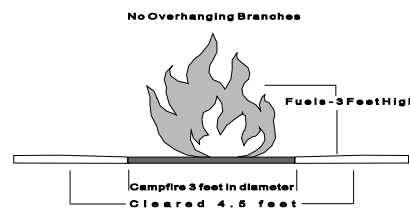
The recognized fire-protection agency may require identified wildland-fire hazards and/or risks be halted, prevented, abated, removed, disposed of, mitigated, or patrolled. This applies to public, private, nonprofit, commercial, and/or residential circumstances or events.

RULE XII - REQUEST FOR REVIEW

If any operator believes that in his case any requirement of a recognized agency is excessive, the operator may request the administrator, division of forestry, to review the requirements. If in the opinion of the administrator any or all are not necessary in the interest of public safety, he may make such changes as he considers advisable.

RULE XIII - DEFINITIONS

Backpack Pump: 5-gallon minimum; standard galvanized metal, fiberglass, or rubberized backpack water container with attached handpump; full of water at all times.



Bucket: Metal, plastic, canvas, or fiberglass container capable of holding at least one gallon of water. Motorcycle helmets qualify. **[Campfire]** means a fire set for cooking, warming, or ceremonial purposes; not more than 3 feet in diameter or height; void of overhanging branches; with all combustible material cleared at least 1-1/2 times the diameter of the fire; or a barbecue in a noncombustible container.

Combi Tool: A tool combining a shovel and pick.

Fireworks: As defined in 50-37-101 MCA.

Forested Land: As defined in 76-13-102 MCA and 36.10.101 ARM.

Hazard: Condition that promotes the ignition and/or spread of a wildland fire.

Open Fire: The burning of a bonfire, rubbish fire, or other fire in an outdoor location where fuel being burned is not contained in a closed incinerator, or outdoor fireplace. Barbecue pits and burn barrels are considered open fires and therefore require a burning permit (Rule I).

Pulaski: An ax with a medium size sharp grub hoe opposite the ax blade.

Recognized Fire-Protection Authority: An agency organized for the purpose of providing fire protection and recognized by the board as giving adequate fire protection to forest lands in accordance with rules adopted by the board.

Risk: Action or device that could cause a wildland fire to ignite.

Shovel: Vehicle, equipment, and chainsaw operator shovels will have a minimum overall length of 36 inches with a round pointed shovel head with a minimum width of 6 inches. Shovels required for campfires must be at least 24-inches in length with a pointed shovel head. Folding handles qualify.

RULE XIV - APPLICABILITY

The forest fire rules, Rule I through Rule XIII, (ARM 36.10.119 through 30.10.132) are in effect each year on classified forest land during the forest fire season May 1st to September 30th inclusive, or any legal extension thereof. Requirements pertaining to motor vehicles do not apply to those being operated solely on roads that are a part of federal or State maintained highway systems or on any paved public road.



WORKING IN BEAR HABITAT

12/03/12

Grizzly bear distribution is expanding in Montana and human/bear encounters are becoming more common. Working in bear habitat increases the likelihood of interactions with bears. It is important for contractors and their employees to be aware of steps that can be taken to minimize conflicts and how to react if an interaction occurs. This pamphlet provides information about bear behavior, preventive measures, and what to do in the event an encounter occurs. *This pamphlet is intended to provide information about possible ways of avoiding encounters with bears. It should not, however, be relied on as the sole means of doing so. In addition to adhering to the guidelines outlined in this document, you should always rely on your experience, training, education and judgment about the best, safest manner to avoid encounters with bears.*

ENCOUNTERS

- ▲ Stay calm and keep the animal in view, but avoid direct eye contact. Bears may interpret eye contact as a sign of aggression. Back away slowly. Never run from a bear unless you know you can reach safety. Determine whether the animal is a black bear or a grizzly bear.
- ▲ If the bear charges, stand your ground. Bears commonly “bluff charge,” stopping within a few feet of a person, before fleeing in a different direction.
- ▲ Keep bear spray handy. Always have a canister of bear spray (at least eight ounces) on your belt. Make sure it is an EPA registered bear spray with 1 to 2% capsaicin and related capsaicinoids, has a spray duration of at least six seconds, and a range of 25 feet. Familiarize yourself with the directions for using the spray. Use it only if confronted by a charging bear. Spray toward the bear, aiming slightly downward.
- ▲ In the event that you have no bear spray, or it was ineffective and the charge is not a bluff, or the bear is exhibiting predatory behavior, you must change your approach. Signs of predatory behavior include: following, showing interest, coming into a tent, and unprovoked attacks. How you respond will depend on the species of bear attacking you. **Black bear and young grizzly attacks:** Always fight back. Jump up and down, wave your arms and yell. Try to look as large as possible. Never play dead – it makes you easier prey. Remember that black bears and small grizzlies can climb trees, so stay on the ground. **Mature grizzly attacks [particularly females with young]:** If a surprise encounter occurs or if bear spray is ineffective, drop to the ground and play dead. Lie on your stomach, clasp your hands behind your neck, and use your elbows and toes to avoid being rolled over. If the bear rolls you over, keep rolling until you land back on your stomach. Remain still and don't struggle or scream. A defensive bear will stop attacking once it feels the threat is gone. Don't move until you are sure the bear has left the area. **If the grizzly is exhibiting predatory behavior or comes into a tent at night, do all you can to escape or fight back.**
- ▲ If an encounter occurs, contact the DNRC forest officer immediately and notify Montana FWP.

JOB SITE PREVENTION

- ▲ Watch for bear signs. Signs include: tracks; droppings; recently overturned rocks or logs; logs torn apart; clawed, bitten or rubbed trees; bear trails; hair on tree bark; fresh diggings; and crushed vegetation. If you observe any of these signs, be aware that a bear may be frequenting the area. If camping, or stopping to eat your lunch, select a different area.
- ▲ When working or walking alone, make noise and carry bear spray. Bears don't like surprises, but will move on if they hear people approaching. Make noise, especially when approaching blind corners, dense shrubs and streams, and when walking into the wind. Maintain regular communication with co-workers.
- ▲ If camping on site, leave coolers, food and beverages inside campers or secured vehicles. If cooking over an open fire, do not discard food or grease in fire pits.
- ▲ Don't leave trash, groceries or animal feed in your vehicle for extended periods. Bears can, and do, pry open car and truck doors and break windows to get at food and other items they associate with food.
- ▲ Bears are attracted to petroleum based products. Keep all fuel and oil canisters in bear resistant containers. Bears have been known to damage hoses, oil filters and foam seats on heavy equipment. Dispose of empty containers promptly.

Joint Application for Proposed Work in Montana's Streams, Wetlands, Floodplains, and Other Waterbodies

CD/Agency Use Only

Application Number: _____ Date Received: _____
 Stream or Waterbody: _____
 Date Accepted: _____ Initials: _____ Date Forwarded to FWP: _____

This section is for all Department of Transportation and SPA 124 Permits (government projects)

Project Name: Taylor to Swift Timber Sale
 Control Number: _____ Contract Letting Date: _____
 MEPA/NEPA Compliance: Yes No If yes, #C5 of this application does not apply.

Applicant Use

This is a standardized application to apply for one or all local, state, or federal permits listed below. Check the box(s) for each permit being applied for.

- Refer to the instructions to determine which permits apply to your project and submit an application to each applicable agency.
- Incomplete applications will result in a delay of application processing.
- The applicant is responsible for obtaining all necessary permits and landowner permission before beginning work.
- Other laws may apply.

	Permit	Agency	Required Application Sections:	Fee
<input type="checkbox"/>	NSLPA 310 Permit	Local Conservation District	A-E and G	No fee
<input checked="" type="checkbox"/>	SPA 124 Permit	Department of Fish, Wildlife & Parks (FWP)	A-E and G	No fee
<input checked="" type="checkbox"/>	318 Authorization 401 Certification	Department of Environmental Quality (DEQ)	A-E and G	\$250 (318); \$400-\$20,000 (401)
<input type="checkbox"/>	Navigable Rivers Land Use License, Lease, or Easement	Department of Natural Resources and Conservation (DNRC), Trust Lands Management Division	A-E and G	\$50, plus additional fee
<input type="checkbox"/>	Section 404 Permit, Section 10 Permit	U.S. Army Corps of Engineers (USACE)	A-G and F1-10	Varied (\$0-\$100)
<input type="checkbox"/>	Floodplain Permit	Local Floodplain Administrator	A-G	Varied (\$25-\$500+)

Joint Application for Proposed Work in Montana's Streams, Wetlands, Floodplains, and Other Waterbodies

A. APPLICANT INFORMATION

APPLICANT (*party responsible for project*) Josh Harris – Montana Dept. of Natural Resources and Conservation

Has the landowner consented to the project? Yes No

Mailing Address: 655 Timberwolf Parkway, Suite 1 City, State: Kalispell, MT Zip: 59901

Physical Address: Same City, State: Zip:

Daytime Phone: 406-751-2260 Email: Joshua.Harris@mt.gov

LANDOWNER NAME (*if different from applicant*) Stillwater Unit-MT Dept. of Natural Resources and Conservation

Mailing Address: Box 164 City, State: Olney, MT Zip: 59927

Physical Address: City, State: Zip:

Daytime Phone: Email:

CONTRACTOR/COMPANY NAME (*if applicable*)

Mailing Address: City, State: Zip:

Physical Address: City, State: Zip:

Daytime Phone: Email:

B. PROJECT SITE INFORMATION

Refer to section B1 of the instructions

1. NAME OF STREAM OR WATERBODY at project location: Bear Creek, Unnammed tributaries of Swift Creek

Project Address/Location: Lower Whitefish Road Nearest Town: Olney

County: Flathead

Please refer to Table 1 in the appendix for specific site information.

Driving directions or other instructions needed for finding the site: On the Lower Whitefish Road, from the intersection of Delrey Road and East Lakeshore Drive, proceed north 2.57 miles on the Lower Whitefish Road to sites 1-5. From the intersection of King Bear Road (gated) and Lower Whitefish Road, proceed 0.25 miles to the junction of King Bear Spur to sites 6-14. From the intersection of East Lakeshore Drive and West Smith Lake Road, proceed 1.9 miles to site 15.

Refer to section B2 of the instructions

2. Is the proposed activity within **SAGE GROUSE** areas designated as general, connected, or core habitat?

Yes No Attach consultation letter if required.

Refer to section B3 of the instructions

3. Is this a **STATE NAVIGABLE WATERWAY**? The state owns the beds of certain navigable waterways.

Yes No If yes, send a copy of this application to the appropriate DNRC land office.

Refer to section B4 of the instructions

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4. **WHAT IS THE CURRENT CONDITION** of the proposed project site? What vegetation is present? Describe the existing bank condition, bank slope, height, nearby structures, and wetlands.

Proposed project sites 1-8 are on unnamed, non-fish-bearing perennial tributaries to Swift Creek. Streams are Rosgen A-type, characterized by moderate gradient and well confined within their floodplain. Bank conditions are highly stable, with little indication of scour or disturbance. Bank slopes reflect natural channel conditions and range from 0 to 90 degrees, with some stable undercut banks present. Bank heights are generally less than 1.0 feet. Site 8 is located on a slope break below a perched wetland with weak channelization above and below the location.

Sites 9-13 consist of a series of perennial seeps and springs situated topographically below the primary wetland complex. These features serve as critical discharge points that most likely contribute direct groundwater baseflow to Swift Creek, though they do not currently meet the regulatory definition of a stream under Montana law due to their limited longitudinal extent; each feature averages only 20–30 feet in length before the surface flow reinfilters.

Site 14 is located on the main channel of Bear Creek, a perennial, fish-bearing tributary to the Swift Creek watershed. This reach is classified as a Rosgen A-type channel, characterized by a steep, entrenched, and high-energy morphology with bank-full widths measuring 2–3 feet and bank heights generally maintained at less than 1.0 foot. The substrate is comprised of stable small to medium cobble bedding, with channel vertical and lateral stability heavily influenced by large woody debris (LWD) control. Current field assessments indicate the banks remain highly stable throughout this reach, exhibiting no signs of active down-scour, incision, or sloughing.

Site 15 is located on an unnamed, non-fish-bearing, intermittent tributary to Smith Creek. Channel banks and scour are weak throughout the area. Site likely meets the definition of overland flow.

C. PROJECT ACTIVITY INFORMATION

Refer to section C1 of the instructions

1. **TYPE OF PROJECT** (check all that apply)

- Agricultural and Irrigation Projects:** Diversions, Headgates, Flumes, Riparian Fencing, Ditches, etc.
- Buildings/Structures:** Accessory Structures, Manufactured Homes, Residential or Commercial Buildings, etc.
- Channel/Bank Projects:** Stabilization, Restoration, Alteration, Dredging, Fish Habitat, Vegetation or Tree Removal, or any other work that modifies existing channels or banks.
- Crossing/Roads:** Bridge, Culvert, Fords, Road Work, Temporary Access, or any project that crosses over or under a stream or channel.
- Mining Projects:** All mining related activities including, Placer Mining, Aggregate Mining, etc.
- Recreation Related Projects:** Boat Ramps, Docks, Marinas, etc.
- Other Projects:** Cisterns, Debris Removal, Excavation/Pit/Pond, Placement of Fill, Drilling or Directional Boring, Utilities, Wetland Alteration. Any other project type not listed here.

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Refer to section C2 of the instructions

2. Is this application for an **ANNUAL MAINTENANCE PERMIT**? Yes No

If yes, attach an annual plan of operations to this application

Refer to section C3 of the instructions

3. Why is this project necessary? State the **PURPOSE OR GOAL** of the proposed project.

The primary objectives of this project are:

- **Statutory Compliance:** Facilitate timber management activities on DNRC-Trust Lands to fulfill the State's statutory requirements for land productivity and revenue.
- **Watershed Protection:** Enhance long-term water quality by implementing Best Management Practices (BMPs), specifically through the upgrade of stream crossing structures and the improvement of road surface drainage to minimize sediment delivery.

Refer to section C4 of the Instructions

4. Provide a brief description of the **PROPOSED PROJECT PLAN** and how it will be accomplished.

Sites 1, 5: Replacement of existing 18" CMPs that have reached the end of their lifespan or are too short for the existing road prism. All CMPs would be 24" diameter and sized to allow installation of rock armoring and slash filter on the inlet and outlet. During replacement, bypass pumps will be used to dewater the site via plastic-lined diversions, CMPs through the road prism, or sump hole pumping across the road prism. Diversion methods will be determined by the forest officer based on water resource conditions at the time of construction. Existing CMPs would be removed, bedding material would be placed and compacted to specifications outlined in the contract. The new CMP would be installed on stream gradient, meeting Montana Forestry BMPs. The inlet and outlet of the CMP would be rock armored, and slash filter windrows would be used to minimize surface drainage to the CMP. All exposed surfaces will be seeded with a site-specific mix to promote rapid vegetation reestablishment.

Site 2, 3, 6, 7, 8: Installation of new 24" diameter CMPs, sized to allow installation of rock armoring and slash filter on the inlet and outlet. During installation, bypass pumps will be used to dewater the site via plastic-lined diversions, CMPs through the road prism, or sump hole pumping across the road prism. Diversion methods will be determined by the forest officer based on water resource conditions at the time of construction. CMPs will be installed on the stream gradient, meeting Montana Forestry BMPs. The inlet and outlet of the CMP would be rock armored, and slash filter windrows would be used to minimize surface drainage to the CMP. All exposed surfaces will be seeded with a site-specific mix to promote rapid vegetation reestablishment.

Site 4: Replacement of an existing 36" CMP that is undersized and too short for the existing road prism with a new 60" CMP. During replacement, bypass pumps will be used to dewater the site via plastic-lined diversions, CMPs through the road prism, or sump hole pumping across the road prism. Diversion methods will be determined by the forest officer based on water resource conditions at the time of construction. Existing CMPs would be removed, bedding material would be placed and compacted to specifications outlined in the contract. The new CMP would be installed on stream gradient, meeting Montana Forestry BMPs. The inlet and outlet of the CMP would be rock armored, and slash filter windrows would be used to minimize surface drainage to the CMP. All exposed surfaces will be seeded with a site-specific mix to promote rapid vegetation reestablishment.

Sites: 9 – 13: Installation of armored drain dips using 6-8 inch angular talus and geotextile fabric. The seeps and springs upwell above the natural slope break before diffusing back under the surface.

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Site 14: The crossing will utilize a 20-foot, 7-ply CLT bridge with a 15-foot free span. This site also follows the DNRC Typical Stream crossing standards and is relatively flat. To accommodate the structure, modifications will be made to create a 2-3% grade with compacted gravel, leaving an estimated vertical clearance of 1 to 2 feet. The crossing is designed to handle equipment return skidding to a landing outside the unit. Upon completion of management activities, the CLT and abutments will be removed. Bare soils will be seeded with a Stillwater riparian mix.

Site 15: Equipment operation across a Class 3 stream. The crossings are located approximately 200 feet or more apart in dry areas characterized by stable banks and bottoms. Operational impacts are further reduced by minimizing excavation and the total distance traveled through the Streamside Management Zone (SMZ). Furthermore, crossings will occur only during periods when the stream is dry to protect water quality, ensuring that the full capacity of the stream channel or ordinary high-water mark (OHW) is maintained throughout the duration of the project.

Refer to section C5 of the instructions

5. What **OTHER ALTERNATIVES** were considered to accomplish the stated purpose of the objective? Why was the proposed alternative selected?

No other alternatives were considered for this project, as the existing forest roads would continue to be utilized for timber management on State Trust Lands. The No Action Alternative would result in no timber sale and continued sediment delivery from crossing structures that do not meet BMPs.

Refer to section C6 of the instructions

6. What are the **NATURAL RESOURCE BENEFITS** or **POTENTIAL IMPACTS**? Please complete the information requested below to the best of your ability:

6a. Explain any temporary or permanent changes in erosion, sedimentation, turbidity, or increases of potential contaminants. What will be done to minimize impacts?

Temporary changes: During and immediately after installation of new crossing structures, sedimentation and turbidity may be elevated compared to the existing condition. No temporary changes in erosion or contaminants would occur. Crossing structures would be installed on stream grade and appropriately sized for large discharge events. If stream discharge is present at any work site, bypass pumps would be used to divert flow around the construction site, minimizing downstream turbidity and sedimentation.

Permanent changes: Long-term reductions in erosion, sedimentation, and turbidity are expected as a result of the project. Existing undersized CMPs installed at grades that do not reflect the stream gradient have led to erosion and scour at the outlets of many CMPs. Replacement with new CMPs installed on stream grade and of appropriate length would be expected to reduce erosion, benefiting native fish. Similarly, sedimentation and turbidity would be expected to be reduced through the incorporation of forestry BMPs and appropriate length crossing structures. New CMPs will mitigate known surface flow issues and reduce sedimentation and turbidity. The CLT crossing structure is temporary and will be removed after forest management activities.

6b. Will the project cause temporary or permanent impacts to fish and/or aquatic habitat? What will be done to protect the fisheries and habitat?

Bear Creek is the only known fish-bearing stream.

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Temporary impacts: During the installation of the CLT at site 14, sedimentation and turbidity may be elevated. The project will install sediment control devices such as wattles.

Permanent impacts: No long-term impacts are expected from the use of a temporary crossing.

6c. What will be done to minimize temporary or permanent impacts to the floodplain, wetlands, or riparian habitat?

Temporary impacts: Temporary impacts from CMP replacement, installation, and CLT bridge installation include localized soil compaction, minor vegetation disturbance, and short-term sediment mobilization within the RMZ and floodplain. These effects are mitigated by working under dewatered or dry conditions, using native seeding and slash filtering for immediate bank stabilization, and restricting equipment use to frozen or dry periods to preserve soil integrity. The extent of riparian disturbance would be limited to the inlet and outlet of the existing crossing structures until riparian vegetation recovers within 5 years.

Permanent impacts: No permanent impacts are expected.

6d. What efforts will be made to decrease flooding potential upstream and downstream of the project?

All proposed structures are designed to accommodate increased or comparable discharge to that of the existing CMPs. Based on current conditions at existing sites, no flooding has occurred. The CLT crossing is expected to pass 25-year events, with vertical clearances to prevent streamflow obstruction or debris capture during high-water events.

6e. Explain any potential temporary or permanent changes to the water flow or to the bed and banks of the waterbody. What will be done to minimize those changes?

Temporary impacts: No impact on water flow would occur, as the sites are either dry or would be bypassed and pumped to the channel immediately downstream of the construction site. Temporary impacts to bed and banks are likely to occur during construction, as the proposed CMPs are generally slightly longer than existing, and would need to be installed on grade, necessitating some bed and bank disturbance. No permanent changes to the stream bed, banks, or natural waterflow are anticipated for the CLT site. While localized bank modifications are required for approach leveling, these changes are strictly temporary; the removal of the bridge and subsequent re-contouring of the approaches ensure the site returns to its natural state.

Permanent impacts: Minimal changes to bed and banks are expected under this proposal. These would be limited to the inlet and outlet areas where increased CMP length or diameter would require excavation. No permanent impacts on water flow would result from the project.

6f. How will existing vegetation be protected and its removal minimized? Explain how the site will be revegetated, including weed control plans.

During construction, riparian vegetation will be removed to the minimum extent practicable. All exposed, excavated surfaces will be reseeded with a site-appropriate riparian grass mix. Weed spraying would occur at regular intervals. All equipment would be inspected for weeds and debris prior to entering the work sites.

D. CONSTRUCTION DETAILS

Refer to section D1 of the instructions

1. Proposed **CONSTRUCTION DATES:** Start: 7/15/2026 End: 8/31/2028

Is any portion of the work already completed? Yes No If yes, please describe previously completed work:

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Refer to section D2 of the instructions

2. PROJECT DIMENSIONS. Describe the length and width of the project.

Sites 1 – 8: Project activities would require excavation of the existing road prism to a sufficient width and depth to safely install the replacement CMPs. Excavation trenches would likely be 48-60” wide, depending on the diameter of the proposed crossing, and extend 10-15 feet upstream and downstream from the proposed CMP. Site 8 will be constructed on a new temporary spur.

Sites 9 – 13: Project activities would require excavation of new temporary road prism to a sufficient width and depth to safely install the drain dips.

Site 14: Project activities are expected to impact 500 – 800 square feet and be localized to the placement of the CLT and abutments.

Site 15: Project activities are expected to impact 600 square feet and be localized to a single crossing location for forest management equipment.

Refer to section D3 of the instructions

3. MATERIALS. Provide the total quantity and source of materials proposed to be used or removed. Note: this may be modified during the permitting process, therefore it is recommended that you do not purchase materials until all permits are issued. List soil/fill type, cubic yards and source, culvert size, rip-rap size, and any other materials to be used or removed on the project.

Cubic yards/ Linear Feet	Size and Type	Source
<p>Sites 1, 2, 3, 5, 6, 7, 8</p> <p>5 cy</p> <p>2 cy</p> <p>30’, 34’, 40’, 34’, 34’, 40’, 35’ L</p> <p>Site 4</p> <p>10 cy</p> <p>5 cy</p> <p>40’ L</p> <p>Sites 9 – 13</p> <p>2 cy</p> <p>Site 14</p> <p>20’ CLT and abutments (Site 1)</p> <p>10 cu yds</p> <p>2-5 cu yds</p>	<p>Sites 1, 2, 3, 5, 6, 7, 8</p> <p>¾” minus crushed gravel</p> <p>6-24” talus</p> <p>24” diameter CMP</p> <p>Site 4</p> <p>¾” minus crushed gravel</p> <p>6-24” talus</p> <p>60” diameter CMP</p> <p>Sites 9 – 13</p> <p>6-24” talus</p> <p>Site 14</p> <p>¾” minus crushed gravel</p> <p>6-24” talus</p>	<p>All sites: Chicken Creek gravel pit</p> <p>CMPs: Furnished by purchaser</p> <p>CLT: Supplied by DNRC</p>

Refer to section D4 of the Instructions

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4. **EQUIPMENT.** List all equipment that will be used for this project. How will the equipment be used on the bank and/or in the water? Note: all equipment used in the water must be **CLEANED, DRAINED, AND DRY.**

Excavator, dump truck, skid steer, dewatering pump will be utilized for this project. All equipment will be operated from existing road prisms and will not operated in wet conditions. All equipment will be inspected by the forest officer prior to entry into the project area for weeds, debris, or leaking fluids.

Will equipment from out of state be used? Yes No Unknown

Will the equipment cross west over the Continental Divide to the project site? Yes No Unknown

Will equipment enter the Flathead Basin? Yes No Unknown

E. REQUIRED ATTACHMENTS

1. Plans and/or drawings of the proposed project should include:
 - a. Plan/Aerial View
 - b. An elevation or cross-section view
 - c. Dimensions of the project (height, width, depth in linear feet)
 - d. Location of storage stockpile materials and location of fill or excavation sites
 - e. Drainage facilities
 - f. Location of existing/proposed structures, such as buildings, utilities, roads or, bridges
 - g. An arrow indicating north
 - h. Site photos
2. Attach a vicinity map or a sketch, which includes: The water body where the project is located, roads, tributaries, and other landmarks. Plan an "X" on the project location. Provide written directions to the site. This is a plan view (looking at the project from above).
3. If requesting a Maintenance 310 Permit, attach an Annual Plan of Operation.
4. Attach an Aquatic Resource Map, which documents the location and boundary of all waters of the U.S. in the project vicinity and includes wetlands and other special aquatic sites. Show the location of the ordinary high-water mark of streams or waterbodies if requesting a Section 404 or Section 10 Permit. Include the ordinary high-water mark delineation on plans or drawings and/or a separate wetland delineation.

F. ADDITIONAL INFORMATION FOR US ARMY CORPS OF ENGINEERS (USACE) SECTION 404, SECTION 10, AND FLOODPLAIN PERMITS

Refer to section F of the instructions

Section F should only be filled out by those needing Section 404, Section 10, and/or Floodplain permits.

Applicants applying for Section 404 and/or Section 10 permits must complete questions F1-10. For questions on Section 404 and/or Section 10 permits, contact the USACE by telephone at 406-441-1375 or by email at montana.reg@usace.army.mil.

Applicants applying for Floodplain permits must complete all of Section F.

Refer to section F1 of the instructions

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1. Does the proposed activity and/or property have permitting history with USACE? If yes, and available, provide the USACE project number(s) associated with the previous permits, including no permit required letters and approved jurisdictional determinations.

Refer to section F2 of the instructions

2. Identify the specific **Nationwide Permit(s)** that you want to use to authorize the proposed activity.

Refer to section F3 of the instructions

3. Provide the footprint of impacts and the quantity of materials proposed to be placed in wetlands and/or below the ordinary high-water mark in waters of the United States. Delineations are required of wetland and other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site.

3a. What is the length and width (or square footage/acreage) for each impact occurring within the waters of the United States, including wetlands?

3b. How many cubic yards of fill material will be placed below the ordinary high-water mark, in a wetland, stream, or other waters of the United States?

Refer to section F4 of the instructions

4. How will the proposed project avoid or minimize **impacts to waters of the United States**? Attach additional sheets if necessary.

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Refer to section F5 of the instructions

5. Will the project impact(s) be equal to or greater than 0.10 acre of wetland and/or 0.03 acre of stream or other waters? If yes, describe how the applicant is going to **compensate (mitigation bank, in-lieu fee program, or permittee responsible)** for these unavoidable impacts to waters of the United States.

Refer to section F6 of the instructions

6. Is the proposed activity within any component of the **National Wild and Scenic Rivers System**, or a river that has been officially designated by Congress as a “**study river?**” Yes No

Refer to section F7 of the instructions

7. Does this activity require permission from the **USACE because it will alter or temporarily or permanently occupy or use a USACE authorized civil works project?** (Examples include USACE owned levees, Fort Peck Dam, and others). Yes No

Refer to section F8 of the instructions

8. List the **ENDANGERED AND THREATENED SPECIES** and **CRITICAL HABITAT(S)** that might be present in the project location.

Refer to section F9 of the instructions

9. List any **HISTORIC PROPERTY(S)** that are listed, determined to be eligible or are potentially eligible (over 50 years old) for listing on the National Register of Historic Places.

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Refer to section F10 of the instructions

10. List all **APPLICABLE LOCAL, STATE, AND FEDERAL PERMITS** and indicate whether they were issued, waived, denied, or pending. Note: all required local, state, and federal, or proof of waiver must be issued prior to the issuance of a floodplain permit.

Refer to section F10 of the instructions

11. List the **NAMES AND ADDRESS OF LANDOWNERS** adjacent to the project site. This includes properties to and across from the project site. Note: Some floodplain communities require certified adjoining landowner lists.

NAME/ADDRESS OF **Adjacent Landowner**:

NAME/ADDRESS OF **Adjacent Landowner**:

NAME/ADDRESS OF **Adjacent Landowner**:

NAME/ADDRESS OF **Adjacent Landowner**:

Refer to section F11 of the instructions

12. **Floodplain Map Number:**

Refer to section F11 of the instructions

13. **Does this project comply with local planning or zoning regulations?** Yes No

Joint Application for Proposed Work in Montana's Streams, Wetlands, Floodplains, and Other Waterbodies

G. SIGNATURE REQUIREMENTS

Refer to section G of the instructions

Some agencies require original signatures for an application to be considered complete. After completing the application form, make the required number of copies and sign each copy. Send the copies with original signatures and additional information required directly to each applicable agency.

The statements contained in this application are true and correct. The applicant possesses the authority to undertake the work described herein or is acting as the duly authorized agent of the landowner. The applicant understands that the granting of a permit does not include landowner permission to access land or construct a project. Inspections of the project site after notice by inspection authorities are hereby authorized.

**By signing or typing my name on the signature line below, I hereby swear and affirm that I am the applicant for this project and am responsible for all information contained in this application.*

*APPLICANT (party responsible for project)

Josh Harris

Print Name

\s\ Josh Harris

Signature of Applicant

2/25/2026

Date

LANDOWNER (If different from applicant)

Print Name

DAVE RING

Signature of Landowner

2/26/26

CONTRACTOR (If applicable. Contact agency to determine if contractor signature is required)

Print Name of Primary Contract

Company/Entity Name (If applicable)

Signature of Contractor

Date

Table 1. Site Descriptions

Site	Township	Range	Section	1/4 Section	Latitude	Longitude
Site 1	32N	22W	19	SENE	48.524781	-114.44348
Site 2	32N	22W	7	NWSE	48.549464	-114.449848
Site 3	32N	22W	6	NESW	48.563081	-114.455448
Site 4	33N	22W	32	NESW	48.577613	-114.46727
Site 5	33N	23W	14	NESE	48.623598	-114.519815
Site 6	32N	22W	20	NESW	48.521474	-114.433044
Site 7	32N	22W	20	NESW	48.521939	-114.433179
Site 8	32N	22W	20	SWNW	48.52386	-114.438156
Site 9	32N	22W	19	NESE	48.522785	-114.439464
Site 10	32N	22W	19	NESE	48.522915	-114.43958
Site 11	32N	22W	19	SENE	48.523014	-114.439691
Site 12	32N	22W	19	NESE	48.522535	-114.440378
Site 13	32N	22W	19	NESE	48.522609	-114.440433
Site 14	32N	22W	20	SESW	48.516995	-114.430671
Site 15	32N	22W	33	NESW	48.49378	-114.408909

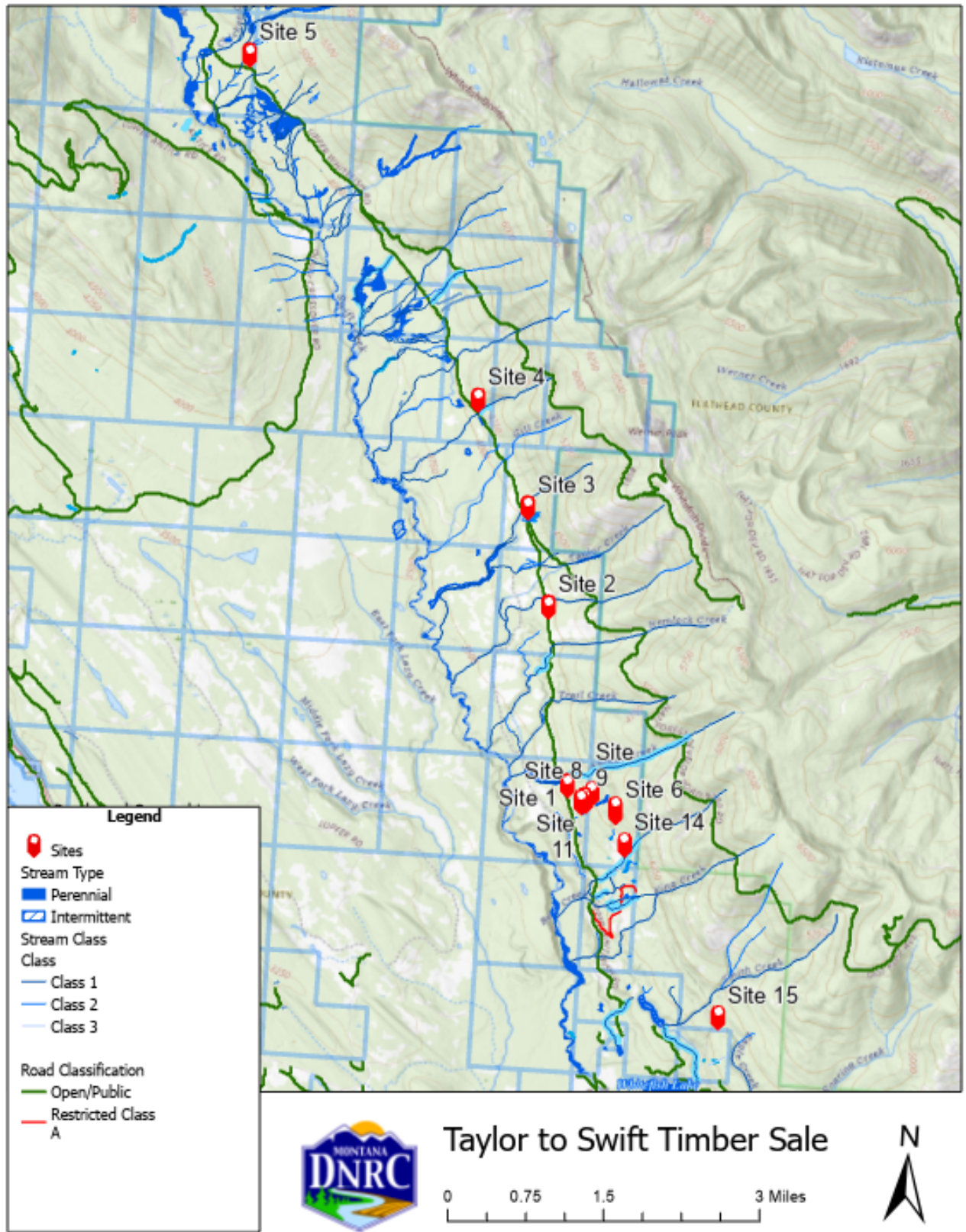
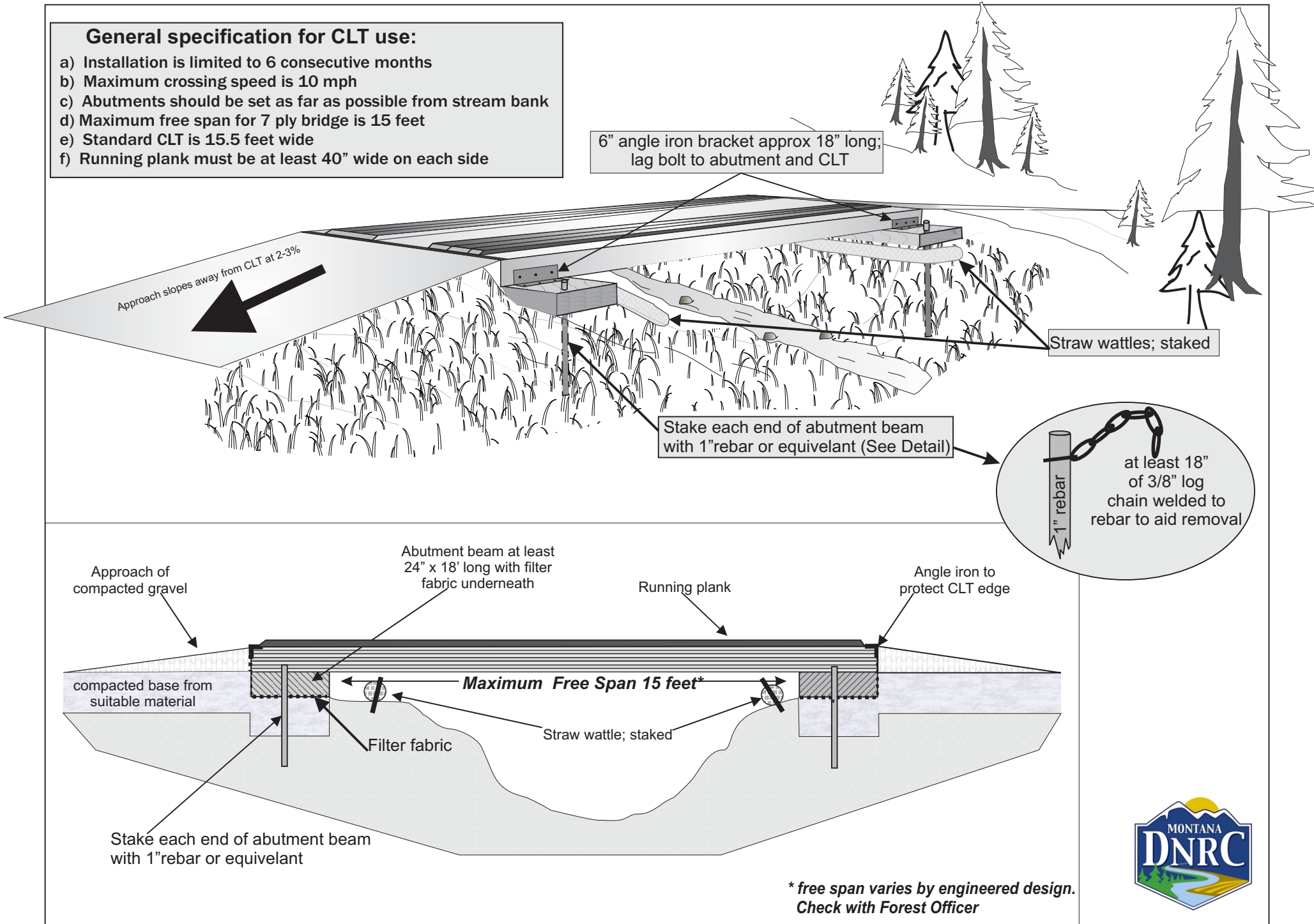


Figure 1. Vicinity map of the Taylor to Swift project area.

Typical Stream Crossing Using Temporary CLT Bridge

General specification for CLT use:

- a) Installation is limited to 6 consecutive months
- b) Maximum crossing speed is 10 mph
- c) Abutments should be set as far as possible from stream bank
- d) Maximum free span for 7 ply bridge is 15 feet
- e) Standard CLT is 15.5 feet wide
- f) Running plank must be at least 40" wide on each side



* free span varies by engineered design.
Check with Forest Officer



Figure 2. Typical Stream crossing using Temporary CLT Bridge.

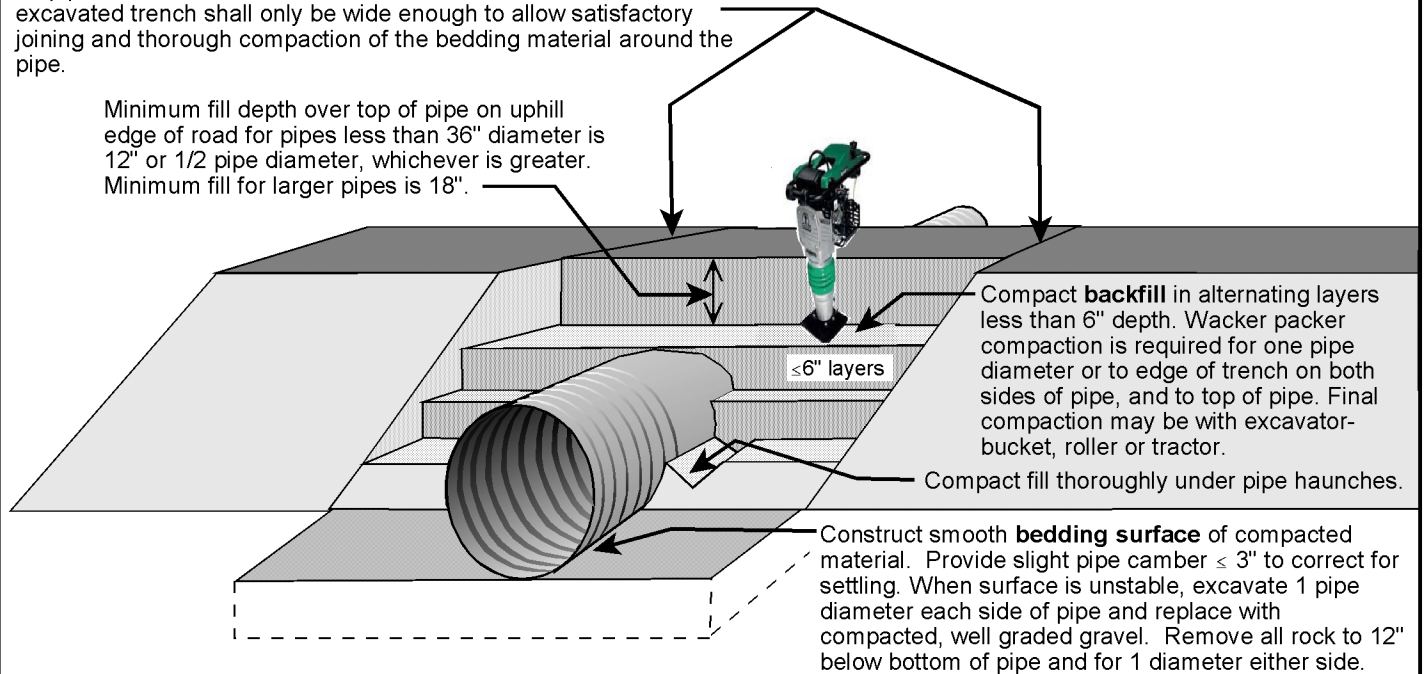
CULVERT REQUIREMENTS

- ▶ Exact locations for pipes shall be determined by the Forest Officer after right of way has been cleared.
- ▶ Backfill shall be select, sorted material. Gravel may be required in road log. If native backfill is used, rocks over 3 inches diameter, organic or frozen materials are not permitted.
- ▶ Pipe shall be protected by adequate fill before equipment is allowed to cross.
- ▶ Pipe that is damaged or improperly installed shall be repaired or replaced at purchaser's expense.
- ▶ The Forest Officer must be contacted two days before any culvert installation and must be present for any wet site culvert installation.
- ▶ Wet site installations will have additional requirements for timing, erosion control and management.

Installation Requirements

All pipes shall be installed with a backhoe or excavator. The excavated trench shall only be wide enough to allow satisfactory joining and thorough compaction of the bedding material around the pipe.

Minimum fill depth over top of pipe on uphill edge of road for pipes less than 36" diameter is 12" or 1/2 pipe diameter, whichever is greater. Minimum fill for larger pipes is 18".



Site Requirements

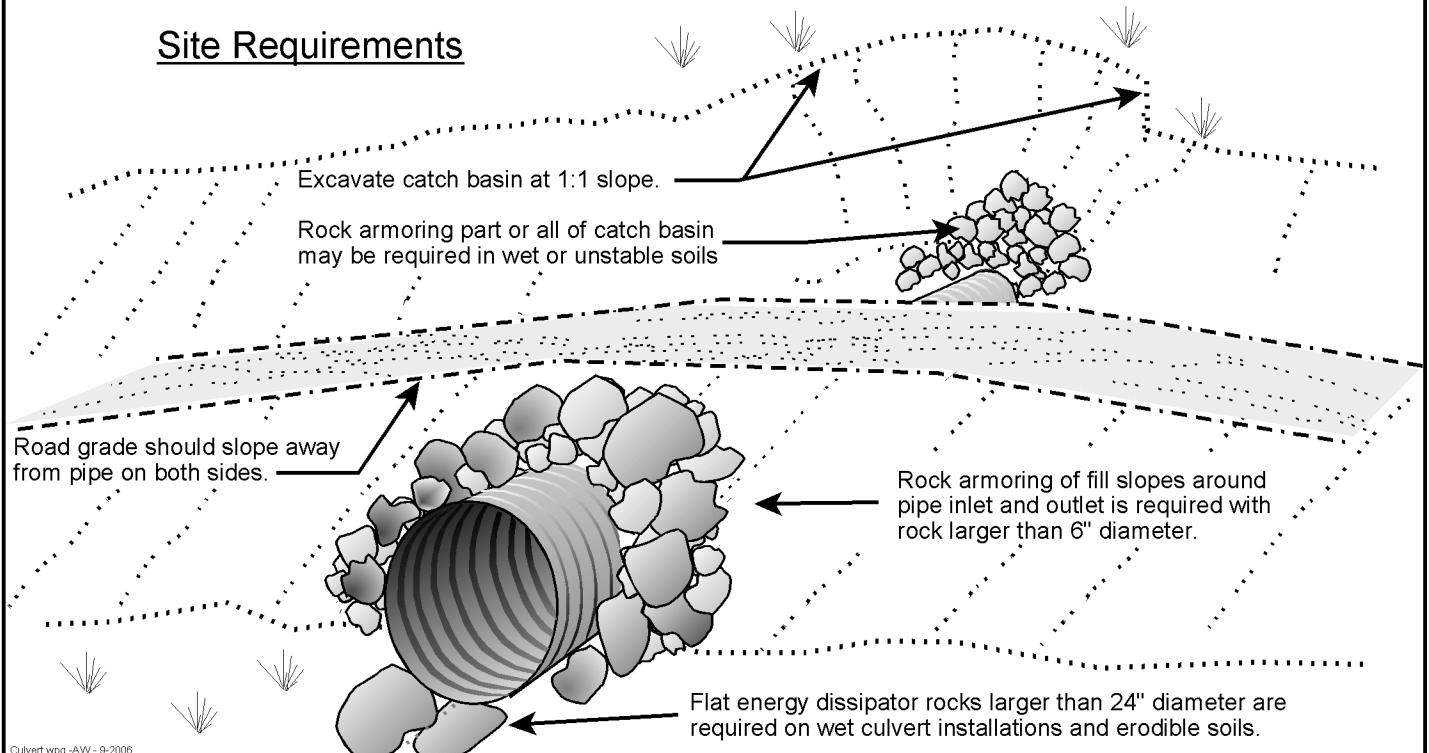
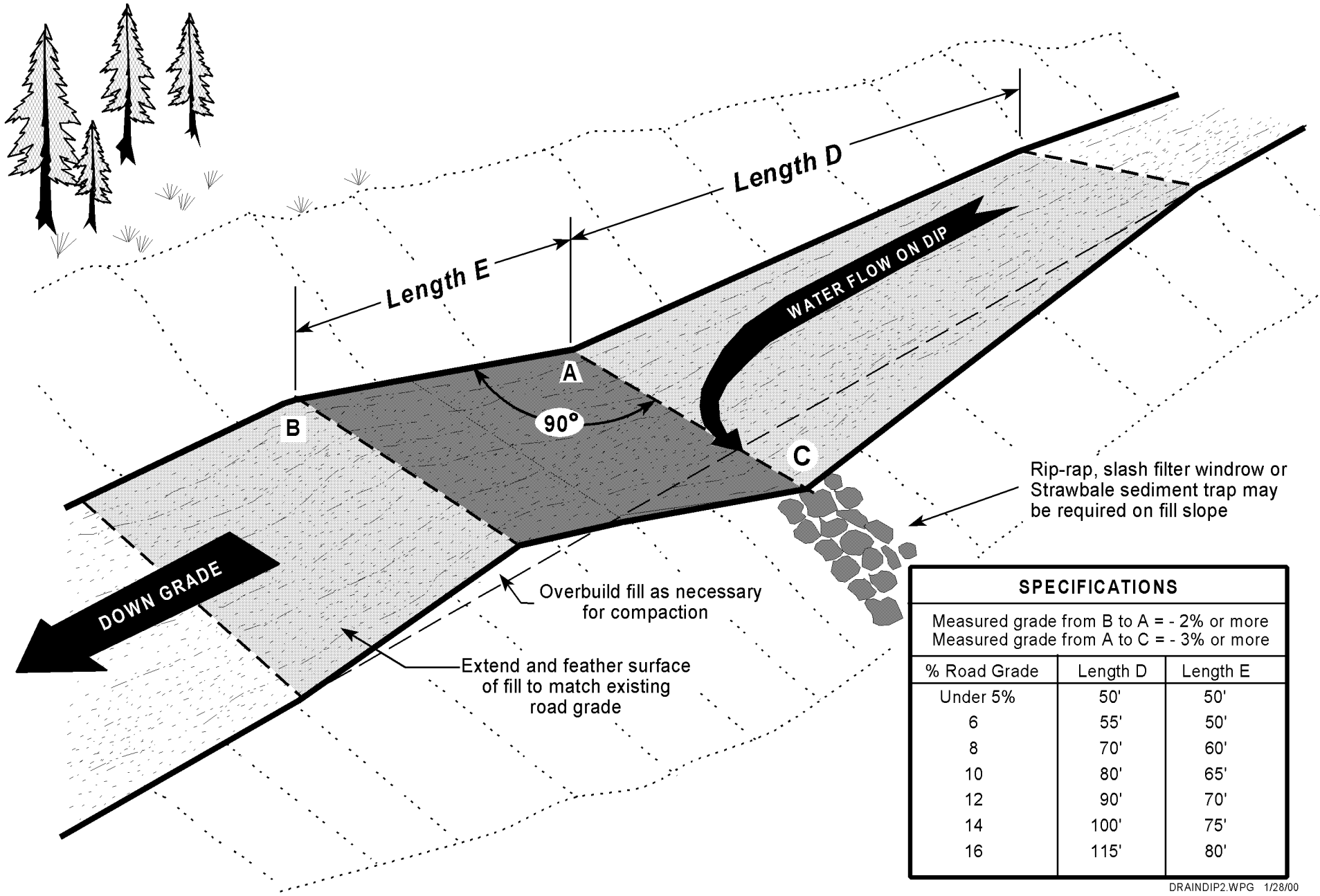


Figure 4. Culvert requirements for typical install.

STANDARD DRAIN DIP FOR SINGLE LANE ROAD



SPECIFICATIONS		
Measured grade from B to A = - 2% or more		
Measured grade from A to C = - 3% or more		
% Road Grade	Length D	Length E
Under 5%	50'	50'
6	55'	50'
8	70'	60'
10	80'	65'
12	90'	70'
14	100'	75'
16	115'	80'

Figure 5. Standard Drain Dip Install for a Single Lane Road.

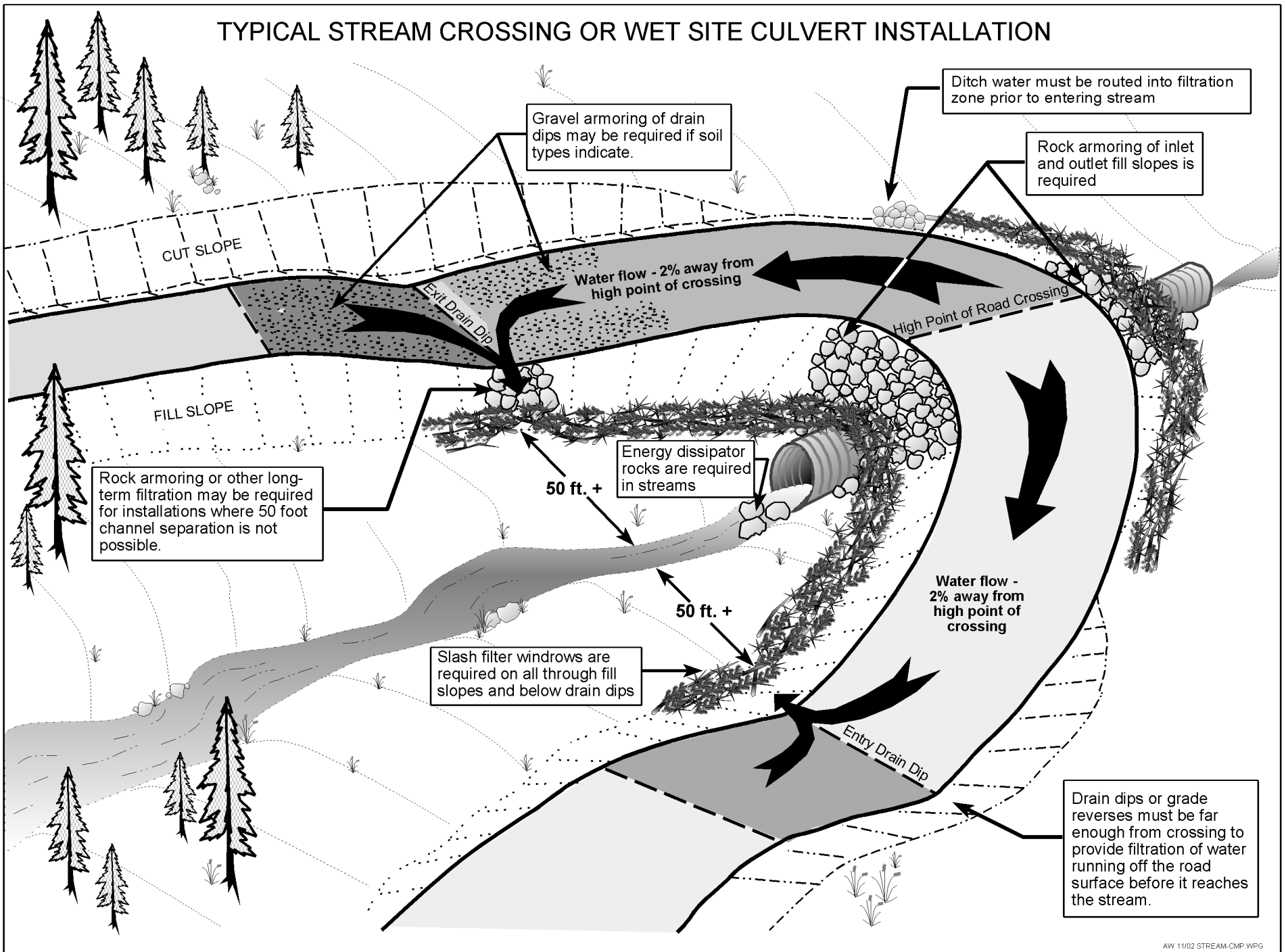


Figure 6. Typical Stream Crossing or Wet Site Culvert Installation.