U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE **TIMBER SALE CONTRACT** (Applicable to Sales to be Measured before Felling)		**Name of Purchaser**	
National Forest Ottawa	**Ranger District** Ontonagon	**Region** Eastern	**Contract Number**
Sale Name Iron Bender PR		**Award Date**	**Termination Date** 09/30/2020

The parties to this contract are The United States of America, acting through the Forest Service, United States Department of Agriculture, hereinafter called Forest Service, and _____ hereinafter called Purchaser.

Forest Service having advertised a sale at which either (1) Purchaser, whose required bid deposit is now held by Forest Service as an initial deposit, was the successful bidder, or (2) no bids were received and Purchaser having subsequently offered at least the minimum advertised price and made an initial deposit in the same amount as the bid deposit specified in the sale advertisement; and the parties hereto desiring to record their agreement; now therefore,

Unless provided otherwise herein, Forest Service agrees to sell and permit Purchaser to cut and remove Included Timber and Purchaser agrees to purchase, cut, and remove Included Timber.

This contract consists of three Divisions: AT - Specific Conditions, BT - Standard Provisions, and CT - Special Provisions, together with Sale Area Map, Plans and specifications for developments (if any), and such attachments as may be provided for in Division CT. Specific Conditions are numbered and apply to the Part, Section, Subsection, or Item of the Standard Provisions, as indicated hereunder. Other conditions of this contract are stated in Division CT - Special Provisions.

IN WITNESS WHEREOF, the parties hereto have executed this contract as of the award date.

UNITED STATES OF AMERICA

Two Witnesses:[1/]

By: _____
Contracting Officer

_____
(Name)

_____
(Title)

By: _____
(Purchaser) [2/]

_____
(Address)

_____

_____
(Name)

_____
(Title)

_____
(Address)

_____
(Business Address)

I, [3/] _____, certify that I am the _____ Secretary of the corporation named as Purchaser herein; that _____ who signed this contract on behalf of Purchaser, was then _____ of the corporation; that the contract was duly signed for and in behalf of the corporation by authority of its governing body, and is within the scope of its corporate powers.

_____ **CORPORATE SEAL** [4/]

INSTRUCTIONS:

1/ The signatures and addresses of two witnesses are required if Purchaser is other than a corporation.

2/ If Purchaser is a co-partnership, the signatures should be: XYZ Company, by John Doe, a member of the firm. If Purchaser is a corporation, form of signature should be: XYZ Company, by John Doe, President (or other officer or agent) and the seal of the corporation must be impressed or indicated.

3/ The certificate must be completed if Purchaser is a corporation.

4/ If the corporation has no corporate seal that fact shall be stated, in which case a scroll or adhesive seal shall follow the corporate name.

EXAMPLE 1/

Subcontractor Certification
Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion

Timber Sale Name: _____
National Forest: _____

The prospective subcontractor (participants in lower tier covered transactions) certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this timber sale by any Federal department or agency.

Where the prospective subcontractor is unable to certify to any of the statements in this certification, such prospective subcontractor shall attach an explanation to this proposal.

Name of Subcontractor: _____
Business Address: _____
_____

_____ _____
Date Signature

1/ It is the Purchaser's responsibility to have subcontractors complete this certification and to maintain a file of completed certifications. This certification does not need to be returned to the Forest Service, except at the written request of the Contracting Officer.

Sale Name: Iron Bender PR **Contract No:**

The following conditions apply to the indicated portions of Division BT - Standard Provisions issued June 2006.

AT1 - Location and Area, applicable to BT1.1

This Sale Area of 537 acres more or less is located in:

T49N-R38W S.25, Ontonagon County;T49N-R37W S.19,20,29,30, Houghton County

AT2 - Volume Estimate and Utilization Standards, applicable to BT2.1, BT2.2, BT2.4, and BT6.4

Species	Product	Estimated Quantity *	Unit of Measure	Minimum Specifications				
				Merchantable Tree		Piece Required to be Removed		
				Diameter Breast High (d.b.h.) (inches)	Number of Minimum Pieces per Tree	Length (feet)	Diameter Inside Bark at Small End (inches)	Net Scale in % of Gross Scale
Mixed Conifer	Sawtimber	3.00	CCF	9.0	1	8	7.6	40
Mixed Hardwood	Sawtimber	765.00	CCF	11.0	1	8	9.6	50
Sugar Maple	Sawtimber	880.00	CCF	11.0	1	8	9.6	50
Aspen	Pulpwood	27.00	CCF	5.0	1	8	4.0	70
Mixed Conifer	Pulpwood	34.00	CCF	5.0	1	8	4.0	70
Mixed Hardwood	Pulpwood	3,897.00	CCF	5.0	1	8	4.0	70
Total Quantity		5,606.00	CCF					

* Quantities not included here are described in BT2.4.

AT3- Timber Designations, applicable to BT2.3; acres are approximate:

	Number	Acres
Clearcutting Units (BT2.31)		
Specified Road Clearing (BT2.32)		
Overstory Removal Units (BT2.33)		
Understory Removal Units (BT2.34)		
Individual Trees (BT2.35)		396
Incompletely Measured Payment Units (BT2.36)		

Sale Name: Iron Bender PR **Contract No:**

AT4 - Timber Payment Rates, applicable to BT3.1 and BT4.0

AT4a - For Species and Products to be Paid for at Rates Escalated under BT3.2

Not Applicable

AT4b- For Species and Products to be Paid for at Flat Rates

Species	Product	Unit of Measure	Rates per Unit of Measure				
			Base $	Advertised $	Bid Premium $	Bid (Flat) $	Required Deposits Slash Disposal $
Mixed Conifer	Sawtimber	CCF	1.01	12.27			.00
Mixed Hardwood	Sawtimber	CCF	4.31	59.36			.00
Sugar Maple	Sawtimber	CCF	5.06	163.30			.00
Aspen	Pulpwood	CCF	1.01	20.72			.00
Mixed Conifer	Pulpwood	CCF	1.00	1.00			.00
Mixed Hardwood	Pulpwood	CCF	1.01	5.95			.00

For purposes of convenience in collection and bookkeeping, Bid Rates stated in AT4 include payment of deposits for sale area betterment required pursuant to 16 USC 576b. Such deposits are not included as Required Deposits defined hereunder.

Sale Name: Iron Bender PR **Contract No:**

AT4c - Schedule of Payment Units

Payment Unit No.	Approx. Acres	Quantity of Species and Products to be Escalated under AT4a	Total Tentative Payment $	Quantity of Species and Products to be Paid for at Flat Rates under AT4b				Total Flat Rate Payment $	Total Required Deposits for Slash Disposal $
001	44			Mixed Conifer	Sawtimber	0.00	CCF		.00
				Mixed Hardwood	Sawtimber	86.00	CCF		
				Sugar Maple	Sawtimber	37.00	CCF		
				Aspen	Pulpwood	3.00	CCF		
				Mixed Conifer	Pulpwood	1.00	CCF		
				Mixed Hardwood	Pulpwood	496.00	CCF		
				Total PU Quantity And Value		623.00	CCF		
002	61			Mixed Conifer	Sawtimber	0.00	CCF		.00
				Mixed Hardwood	Sawtimber	154.00	CCF		
				Sugar Maple	Sawtimber	80.00	CCF		
				Aspen	Pulpwood	14.00	CCF		
				Mixed Conifer	Pulpwood	1.00	CCF		
				Mixed Hardwood	Pulpwood	661.00	CCF		
				Total PU Quantity And Value		910.00	CCF		
003	20			Mixed Conifer	Sawtimber	0.00	CCF		.00
				Mixed Hardwood	Sawtimber	21.00	CCF		
				Sugar Maple	Sawtimber	24.00	CCF		
				Aspen	Pulpwood	2.00	CCF		
				Mixed Conifer	Pulpwood	0.00	CCF		
				Mixed Hardwood	Pulpwood	219.00	CCF		
				Total PU Quantity And Value		266.00	CCF		
004	56			Mixed Conifer	Sawtimber	0.00	CCF		.00
				Mixed Hardwood	Sawtimber	78.00	CCF		
				Sugar Maple	Sawtimber	146.00	CCF		
				Aspen	Pulpwood	0.00	CCF		
				Mixed Conifer	Pulpwood	0.00	CCF		
				Mixed Hardwood	Pulpwood	446.00	CCF		
				Total PU Quantity And Value		670.00	CCF		
005	59			Mixed Conifer	Sawtimber	0.00	CCF		.00
				Mixed Hardwood	Sawtimber	113.00	CCF		
				Sugar Maple	Sawtimber	169.00	CCF		
				Aspen	Pulpwood	1.00	CCF		
				Mixed Conifer	Pulpwood	0.00	CCF		
				Mixed Hardwood	Pulpwood	552.00	CCF		
				Total PU Quantity And Value		835.00	CCF		
006	62			Mixed Conifer	Sawtimber	3.00	CCF		.00
				Mixed Hardwood	Sawtimber	56.00	CCF		
				Sugar Maple	Sawtimber	208.00	CCF		
				Aspen	Pulpwood	6.00	CCF		
				Mixed Conifer	Pulpwood	3.00	CCF		
				Mixed Hardwood	Pulpwood	545.00	CCF		
				Total PU Quantity And Value		821.00	CCF		
007	29			Mixed Conifer	Sawtimber	0.00	CCF		.00
				Mixed Hardwood	Sawtimber	50.00	CCF		
				Sugar Maple	Sawtimber	57.00	CCF		
				Aspen	Pulpwood	0.00	CCF		
				Mixed Conifer	Pulpwood	2.00	CCF		
				Mixed Hardwood	Pulpwood	256.00	CCF		
				Total PU Quantity And Value		365.00	CCF		

Sale Name: Iron Bender PR **Contract No:**

Payment Unit No.	Approx. Acres	Quantity of Species and Products to be Escalated under AT4a	Total Tentative Payment $	Quantity of Species and Products to be Paid for at Flat Rates under AT4b				Total Flat Rate Payment $	Total Required Deposits for Slash Disposal $
008	64			Mixed Conifer	Sawtimber	0.00	CCF		.00
				Mixed Hardwood	Sawtimber	141.00	CCF		
				Sugar Maple	Sawtimber	119.00	CCF		
				Aspen	Pulpwood	0.00	CCF		
				Mixed Conifer	Pulpwood	0.00	CCF		
				Mixed Hardwood	Pulpwood	515.00	CCF		
				Total PU Quantity And Value		775.00	CCF		
009	1			Mixed Conifer	Sawtimber	0.00	CCF		.00
				Mixed Hardwood	Sawtimber	66.00	CCF		
				Sugar Maple	Sawtimber	40.00	CCF		
				Aspen	Pulpwood	1.00	CCF		
				Mixed Conifer	Pulpwood	27.00	CCF		
				Mixed Hardwood	Pulpwood	207.00	CCF		
				Total PU Quantity And Value		341.00	CCF		

The following definitions are established for the terms used in AT4:

Base Rates are the lowest rates of payment for timber that are authorized by this contract. Base Rates remain constant throughout the life of this contract and are not subject to change by rate redetermination, except for reduction under BT3.31, BT3.32, or BT3.33.

Advertised Rates are the minimum acceptable Bid Rates for timber, exclusive of Required Deposits. These rates are those indicated by appraisal, with a cost allowance made for construction of Specified Roads listed in AT7, but are never less than Base Rates.

Bid Premium Rates are the amounts by which Purchaser's bid is in excess of Advertised Rates. The Bid Premium Rates are constant during this contract, except as provided in BT3.31, BT3.32, and BT3.33.

Bid Rates are the rates bid by Purchaser (exclusive of Required Deposits for slash disposal and road maintenance) and are the sum of Advertised Rates and Bid Premium Rates. Until a rate redetermination becomes effective, the Bid Rate for species and products in AT4a is the Tentative Rate that is subject to quarterly adjustment under BT3.2; for species and products in AT4b, the Bid Rate is the Flat Rate.

Required Deposits are deposits that Purchaser may be required to pay for slash disposal (16 USC 490) and road maintenance (16 USC 537). Required Deposits may be adjusted as part of a rate redetermination or a Contract Term Extension. The table shows only Required Deposits for slash disposal; road maintenance deposits, if any, are given in CT5.32#.

Base Index is the specified average of the lumber or other product selling value index used as the basis for computing adjustment in rates for variance in product selling value, as provided in BT3.2.

AT5 - Indices Used in Quarterly Adjustment, applicable to BT3.2

Not Applicable

AT6 - High Stumps, applicable to BT6.412

Species	Product	Maximum Stump Height (inches)
All	Sawtimber	14
All	Pulpwood	10

Sale Name: Iron Bender PR **Contract No:**

AT7 - Specified Roads, applicable to BT5.2

Name and Date of Governing Road Specifications: Federal Highway Administration Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects(2003)-english

Project		Design Class	Approx. Length (mi./km.)	Sheet Numbers and Approval Date	Performance Responsibility		
Road No.	Name				Survey	Design	Construction Staking 1/
1100-R1	FDR1100-R1 (C) (segment 0 to .1)	Single Lane - 15 mph	.1 / .16	SR-1 thru SR-33 03/09/2016	FS	FS	FS AC
1157-A1	FDR1157-A1 (C) (segment 0 to .23)	Single Lane - 15 mph	.23 / .37	SR-1 thru SR-33 03/09/2016	FS	FS	FS AC
1100-R	FDR1100-R (R) (segment 0 to .26)	Single Lane - 15 mph	.26 / .42	SR-1 thru SR-33 03/09/2016	FS	FS	FS AC
1157-A	FDR1157-A (R) (segment 0 to .35)	Single Lane - 15 mph	.35 / .56	SR-1 thru SR-33 03/09/2016	FS	FS	FS AC
1157-AA	FDR1157-AA (R) (segment 0 to .39)	Single Lane - 15 mph	.39 / .63	SR-1 thru SR-33 03/09/2016	FS	FS	FS AC

1/ Indicate timing, i.e., before clearing (BC) or after clearing (AC). Applicable to BT5.212.

AT8 - Forest Service Engineering Completion Schedule, applicable to BT5.21

Road No.	Road Name	Type of Work	Completion Date
	NOT APPLICABLE		

AT9 - Fire Precautionary Period, applicable to BT7.2

April 01 to November 15 , inclusive

AT10 - Purchaser Responsibility to Furnish Crews and Equipment for:

Initial Fire Supression, applicable to BT7.3

Within 5.0 road miles

Fire Suppression Reinforcement, applicable to BT7.312 and BT7.313

Within 20.0 road miles

AT11 - Purchaser's Obligation per Operations Fire, applicable to BT7.41

Maximum Amount: $ $1,000

AT12 - Termination Date, applicable to BT8.2

September 30, 2020

AT13 - Normal Operating Season, applicable to BT6.31, BT6.66, BT8.21 and BT9.3

First Period: July 15 to September 30 , inclusive

Second Period: December 15 to March 15 , inclusive

AT14 - Performance Bond, applicable to BT9.1

Performance Bond Amount: _____

AT15 - Downpayment, applicable to BT4.211

Downpayment Amount: _____

AT16 - Periodic Payment Amount, applicable to BT4.213

	Periodic Payment Determination Date	Amount
Initial Payment:	____	_____
Additional Payment:	____	_____

AT17 - Market-Related Contract Term Addition Producer Price Index, applicable to BT8.212

Index Name: Wood Chips **Index Number:** 3211135

AT18 - Inapplicable Standard Provisions

The following listed Sections, Subsections, or Items of Division BT - Standard Provisions - are hereby made inapplicable. (Instructions: List by reference number and title.)

BT4.211	DOWNPAYMENT
BT4.4	PAYMENTS NOT RECEIVED
BT8.212	MARKET-RELATED CONTRACT TERM ADDITION

AT19 - List of Special Provisions

The following listed special provisions are attached to and made a part of this contract as Division CT. Provisions with reference numbers followed by # contain blanks into which data have been entered for this sale. (Instructions: List by reference number, title, and date.)

CT2.302#	BOUNDARY TREES (06/2009)
CT2.355#	INDIVIDUAL TREES, CUT TREE MARKING (06/2009)
CT4.211	DOWNPAYMENT (06/2007)
CT4.212	TEMPORARY REDUCTION OF DOWNPAYMENT (08/2009)
CT4.4	PAYMENTS NOT RECEIVED (08/2012)
CT5.12#	USE OF ROADS BY PURCHASER (06/1999)
CT5.221#	MATERIAL SOURCES (04/2004)
CT5.31#	ROAD MAINTENANCE REQUIREMENTS (07/2001)
CT5.32#	ROAD MAINTENANCE DEPOSIT SCHEDULE (08/2012)
CT5.33#	SNOW REMOVAL (06/2009)
CT6.314#	OPERATING REQUIREMENTS (06/2009)
CT6.412	STUMP MARKS (06/2009)
CT6.62#	SITE SPECIFIC WETLANDS PROTECTION MEASURES (07/2001)
CT6.7#	SLASH DISPOSAL MEASURES (06/2009)
CT7.2	FIRE PRECAUTIONS (06/2009)
CT8.212	MARKET-RELATED CONTRACT TERM ADDITION (11/2008)

There are no pages 108-109.

CT2.302# - BOUNDARY TREES *(06/2009)*

Boundary trees for all harvest units have been designated with **ORANGE (3 paint slashes at eye level facing into the Payment Unit for exterior boundaries; 2 paint slashes at eye level on each side of the boundary for interior boundaries)** paint marks above and below stump height. Boundary trees shall not be cut.

CT2.355# - INDIVIDUAL TREES, CUT TREE MARKING *(06/2009)*

Individual trees to be cut are Marked with indicated color above and below stump height in all or parts of the following Payment Unit(s). Areas of cut tree marking are shown on the Sale Area Map with the symbol "CTM."

PAYMENT UNIT(S)	PAINT COLOR

CT2.355# - INDIVIDUAL TREES, CUT TREE MARKING. (06/2009)

Cut Tree Marking Table

Payment Units	Paint Color
Payment Units 001 - 008	Green
009 (Roads)	YELLOW

CT4.211 - DOWNPAYMENT *(06/2007)*

The downpayment amount shown in AT15 may not be applied toward any other payment required under the provisions of this contract, except damages determined pursuant to BT9.4, transferred to other timber sales, or refunded until (a) stumpage value representing 25 percent of the total bid value of the timber sale is shown on Timber Sale Account to have been cut, removed, and paid for, or (b) the estimated value remaining to be cut and removed, as shown on Timber Sale Account, is equal to or less than the amount of the downpayment, or (c) if 36 CFR 223.49(e) is applicable, the estimated value remaining to be cut and removed, as shown on Timber Sale Account, is equal to or less than the amount of the downpay-ment. For lump sum timber sales, the downpayment may be applied to payment for release of the single payment unit.

If Forest Service makes a determination that this contract should not have been included under in-creased downpayment requirements (36 CFR 223.49(e)), the downpayment shall be revised and applied in accordance with 36 CFR 223.49(f).

CT4.212 - TEMPORARY REDUCTION OF DOWNPAYMENT *(08/2009)*

Notwithstanding BT4.211 or CT4.211, upon the Purchaser's written request Forest Service may temporarily reduce the downpayment when Purchaser's scheduled operations are delayed or interrupted for 30 or more consecutive days, or the contract term is extended for 30 or more consecutive days for any of the following reasons:

(1) Forest Service requests or orders Purchaser to delay or interrupt scheduled operations for reasons other than breach;

(2) Purchaser interrupts or delays scheduled operations to work on a sale designated by the Forest Service as in urgent need of harvesting; or

(3) An adjustment of the contract term authorized upon a determination of substantial overriding public interest, including a market-related contract term addition, or an urgent removal contract term extension under 36 CFR 223.53.

When Purchaser is not cutting or removing timber under contract during a qualifying period of delay, interruption, or extension listed above the downpayment may be reduced to $1000 or 2 percent of the downpayment amount stated in the contract, whichever is greater. The Purchaser must restore the downpayment to the full amount stated in the contract within 15 days from receipt of the bill for collection and written notice from the Contracting Officer that the basis for temporarily reducing the downpayment no longer exists. Purchaser shall not cut or remove timber on a contract where the downpayment has been temporarily reduced until the downpayment amount stated in the contract is fully restored.

CT4.4 - PAYMENTS NOT RECEIVED *(08/2012)*

(a) Payments are due and payable on the date of issue indicated on the bill for collection. When a payment for timber cut and other charges is not received at the location designated by Forest Service by the date specified in the bill for collection, Contracting Officer will suspend all or any part of Purchaser's Operations until payment or acceptable payment guarantee is received. Other charges include, but are not limited to:

(i) Slash disposal and road maintenance deposits;

(ii) Cooperative work at rates established by specific agreement under BT4.218;

(iii) Damages pursuant to BT9.4;

(iv) Road use fees;

(v) Restoration of downpayment pursuant to BT4.22;

(vi) Periodic payments pursuant to BT4.213;

(vii) Extension Deposits pursuant to BT4.217; and

(viii) Other mandatory deposits.

(b) Failure to pay amounts due by the date specified in the bill for collection shall be considered a breach under BT9.3. The 30-day notice period prescribed therein shall begin to run as of the end of business on the date specified for receipt of payments. If the performance or payment is guaranteed by surety bond, the surety will receive a copy of the written notification of breach. Demand will be made on the surety or other institution providing the guarantee or bond instrument for immediate payment 10 days after issuance of written notification of the breach.

(c) Pursuant to the Debt Collection Improvement Act of 1996, as amended, if payment is not received by Forest Service within 15 days after the date of issue indicated on the bill for collection:

(i) Simple interest shall be assessed at the Current Value of Funds Rate as established by the Secretary of the Treasury. Interest will begin to accrue as of the date of issue indicated on the initial bill for collection.

(ii) Debtors will be assessed administrative charges, in addition to the delinquent amount due. Administrative charges are those additional costs incurred by the Government in processing, handling, and collecting delinquent debts.

(iii) A penalty charge of six (6) percent per annum will be assessed on any portion of a debt delinquent more than 90 days. This penalty charge is in addition to interest and administrative charges under paragraphs (c)(i) and (c)(ii). The penalty charge shall accrue from the date of issue indicated on the bill for collection and shall be assessed on all outstanding amounts, including interest and administrative costs assessed under paragraphs (c)(i) and (c)(ii).

(iv) Payments will be credited on the date received by the Federal Depository or Collection Officer designated on the bill for collection.

(d) Forest Service remedies for Purchaser's failure to make payment for timber cut and other charges when due, except for accrual of interest, suspension of all or any part of Purchaser's Operations, and administrative offset, shall be stayed for so long as:

(i) A bona fide dispute exists as to Purchaser's obligation to make such payment and

(ii) Purchaser files and prosecutes a timely Claim.

CT5.12# - USE OF ROADS BY PURCHASER *(06/1999)*

Purchaser's use of existing roads identified on Sale Area Map by the following codes is prohibited or subject to restrictive limitations, unless agreed otherwise:

Code	Use Limitations
X	Hauling prohibited
R	Hauling restricted
U	Unsuitable for hauling prior to completion of agreed reconstruction
P	Use prohibited
A	Public use restriction
W	Regulation waiver

Roads coded A will be signed by the Forest Service to inform the public of use restrictions. Purchaser's use of roads coded R, A, or W shall be in accordance with the following restrictions:

See Restricted Road List Table.

CT5.12# – USE OF ROADS BY PURCHASER. (06/1999)

Restricted Road List

Road Number	Road Name	Termini (miles)		Map Legend	Description of Restrictions
		From	To		
FR 1100-R	FR 1100-R	POB	POE	U	Unsuitable for hauling prior to completion of agreed reconstruction.
FR 1157	FR 1157	1.23	POE	P	Use Prohibited.
FR 1157-A	FR 1157-A	POB	POE	U	Unsuitable for hauling prior to completion of agreed reconstruction.
FR 1157-AA	FR 1157-AA	POB	POE	U	Unsuitable for hauling prior to completion of agreed reconstruction.

POB = Point of Beginning
POE = Point of Ending

Note: hauling includes empty or loaded log trucks.

CT5.221# - MATERIAL SOURCES *(04/2004)*

Sources of local materials are designated on Plans and Sale Area Map. Forest Service assumes responsibility for the quality and quantity of material in designated sources. Purchaser shall determine the equipment and work required to produce the specified product, including the selection of acceptable material that is reasonably available in the source that meets specifications. The designation of source includes the rights of Purchaser to use certain area(s) for plant site, stockpiles, and haul roads.

Should the designated source, due to causes beyond the control of Purchaser, contain insufficient acceptable material, Forest Service will provide another source with adjustment in accordance with BT5.253.

When Purchaser elects not to use designated sources, Purchaser shall furnish the specified product with no adjustment in unit rates. Quality testing shall be the responsibility of Purchaser. Test results shall be furnished to Forest Service.

When Purchaser elects not to use designated sources and the Schedule of Items lists pit development separately, cost allowance will be reduced under BT5.253 when Forest Service determines the work will not be required.

When materials are subject to a weight measurement, the specific gravity or weight/volume relationship used as a basis for determination of estimated quantities shall be:

Source I **N/A** , Source II **N/A** , and Source III **N/A** .

Purchaser may, when agreed in writing, use on the project such suitable stone, gravel, and sand, or other material found in the excavation, and will earn a cost allowance for the excavation of such materials at the corresponding contract unit price and for the pay items for which the excavated material is used. Purchaser shall replace, without additional cost allowance, sufficient suitable materials to complete the portion of the work, which was originally contemplated to be constructed with such material. Purchaser shall not excavate or remove any material, except that which is within the excavation limits, without written authorization from Forest Service.

When material is appraised from non-National Forest designated sources, owner charges for the material in terms of unit cost for royalties, purchase of raw materials, or finished products shall be as follows until **N/A** :

See Material Source Table.

Should quantity vary from that estimated, payment to owners shall be for units actually obtained. Purchaser shall make arrangements with owner(s) for measurement and payment for royalties, purchase of raw materials, or finished products, as shown above.

Materials produced or processed from National Forest lands in excess of the quantities required for performance of this contract are the property of Forest Service, unless prior written agreement has been obtained to use excess material on other National Forest sales. Forest Service is not obligated to reimburse Purchaser for the cost of their production.

Materials shall be stored to assure the preservation of their quality and fitness for the work. Stored mate-rials shall be located to facilitate their prompt inspection. Sites on Forest Service administered land, ap-proved by Forest Service, may be used for storage purposes and for the placing of Purchaser's plant equipment. All storage sites provided by Forest Service shall be restored at Purchaser's expense. Pur-chaser shall be responsible for making arrangements for storage on other than Forest Service adminis-

tered lands.

When the construction of the portion of the project for which Temporary Roads used for hauling materials is completed, all such Temporary Roads shall be restored as nearly as practicable to their original ground profile, unless otherwise agreed in writing.

CT5.221# – MATERIAL SOURCES. (4/04)

Material Source Table

Material	Type of Purchase	Owner(s)	Unit of Measure	Unit Price	Estimated Quantity	Total
Pit Run	N/A	USFS	CY	N/A	580	580 CY

NOTE: Pit restoration (per specifications) in the Onion Creek Pit shall be accomplished no later than the end of each operating season.

CT5.31# - ROAD MAINTENANCE REQUIREMENTS *(07/2001)*

Purchaser shall maintain roads in accordance with the following Contract Road Maintenance Requirements Summary:

See Contract Road Maintenance Requirements Summary Table.

SECTION 3. ROAD MAINTENANCE REQUIREMENTS SCHEDULE

Contract Road Maintenance Requirements Summary

Road	Termini		Miles	Applicable Prehaul Road Maintenance Specifications								
	From	To		T-8030	T-8110	T-8130	T-8310	T-8340	T-8350	T-8360	T-8420	T-8620
1157	0.00	1.23	1.23			P	P	P		P		P

P = Purchaser Performance Item, **D** = Deposit to Forest Service, **D3** = Deposit to Third Party

Road	Termini		Miles	Applicable During Haul Road Maintenance Specifications								
	From	To		T-8030	T-8110	T-8130	T-8310	T-8340	T-8350	T-8360	T-8420	T-8620
1100-R	0.00	0.26	0.26	P		P[1/]	P	P		P		
1100-R1	0.00	0.10	0.10	P		P[1/]	P	P		P		
1157	0.00	1.23	1.23	P		P[1/]	P	P		P		
1157-AA	0.00	0.39	0.39	P		P[1/]	P	P		P		
1157-A	0.00	0.35	0.35	P		P[1/]	P	P		P		
1157-A1	0.00	0.23	0.23	P		P[1/]	P	P		P		
1100	POB	POE	10.7	P	D		D	D			D	

P = Purchaser Performance Item, **D** = Deposit to Forest Service, **D3** = Deposit to Third Party

[1/] **60 CY (78 CY loose) to be spot placed as directed by Forest Service**

Road	Termini		Miles	Applicable Post Haul Road Maintenance Specifications								
	From	To		T-8030	T-8110	T-8130	T-8310	T-8340	T-8350	T-8360	T-8420	T-8620
1100-R	0.00	0.26	0.26				P	P	P	P		P
1100-R1	0.00	0.10	0.10				P	P	P	P		
1157	0.00	1.23	1.23				P	P	P	P		P
1157-AA	0.00	0.39	0.39				P	P	P	P		P
1157-A	0.00	0.35	0.35				P	P	P	P		P
1157-A1	0.00	0.23	0.23				P	P	P	P		
1100	POE	POB	10.7		D		D	D			D	

P = Purchaser Performance Item, **D** = Deposit to Forest Service, **D3** = Deposit to Third Party

CT5.32# - ROAD MAINTENANCE DEPOSIT SCHEDULE *(08/2012)*

Other provisions herein notwithstanding, when Forest Service requests payment in lieu of Purchaser's performance of road maintenance, Purchaser shall make Required Deposits (16 USC 537) for current and/or deferred road maintenance. Such deposits are based on the estimated volume and distance hauled and Purchaser's commensurate use of each road listed in the Road Maintenance Plan in CT5.31#.

Purchaser and Forest Service may agree in writing on adjustment of such rates. If Purchaser uses roads under jurisdiction of Forest Service other than those listed in the Road Maintenance Plan, Forest Service shall establish rates commensurate with Purchaser's use of such roads.

The Required Deposits for Forest Service work in lieu of Purchaser performance are **$2.64** per **CCF** for recurrent maintenance, and **$2.64** per **CCF** for deferred maintenance.

The following table lists who Purchaser will make deposits for road maintenance to, and the rate per unit of measure of the deposit. The Road Maintenance Agreement is available for inspection at the Forest Supervisor's office.

Deposit Made To	Rate	Unit of Measure
N/A		

CT5.33# - SNOW REMOVAL *(06/2009)*

Snow removal shall be done in a manner that will preserve and protect roads, provide for safe and efficient transport of timber, and prevent erosion damage to streams and adjacent lands. In performing snow removal, Purchaser shall adhere to the following performance standards, unless otherwise agreed:

1. Blade will be equipped with skid shoes to prevent loss of surfacing and damage to the road bed. On gravel and native surface roads, a minimum **4** -inch depth compacted snow mat will be maintained on the roadbed during blading.

2. Snow shall be removed from the entire road width, including turnouts.

3. Snow berms will be reduced at road intersections where plowed road segements join unplowed road segments. Reduce the piled snow in the roadway to create a smooth transition from plowed road to normal snow depth.

4. Openings will be created in snow berms as needed for proper drainage. Remove snow, ice, and debris from culverts and other drainage structures as needed to ensure efficient flow of water.

5. Tracked or cleated vehicles will not be used for snow removal without prior written approval of Forest Service Representative.

CT6.314# - OPERATING REQUIREMENTS *(06/2009)*

Within Sale Area, unless changed by written agreement, the following operating requirements apply:

Restricted operations/activities:
Payment Units 001 & 003 - 008: Purchasers operations are restricted during the period of 3/16 thru 07/31 (due to soils and protection of residual stems) and from 10/01 to 12/14 (due to soils).

Payment Unit 002: Purchasers operations are restricted during the period of 3/16 thru 07/14 (due to soils and protection of residual stems) and from 10/01 to 12/14 (due to soils).

Within the Sale Area, decked pine and other conifer material must be removed from the Sale Area within 30 days of cutting to minimize the potential breeding areas for pine beetles during the period of May 1 thru September 30

Prohibited operations/activities:
N/A

CT6.412 - STUMP MARKS *(06/2009)*

Trees designated for cutting under BT2.35 have been marked with paint at breast height and below stump height. Trees shall be felled so as to leave paint on stump.

CT6.62# - SITE SPECIFIC WETLANDS PROTECTION MEASURES *(07/2001)*

Measures needed to protect wetlands identified on the Sale Area Map or on the ground include:

All equipment, vehicles, and logging slash are prohibited from these areas. Any logging slash that falls within these areas shall be removed or treated, as directed by the Forest Service.

CT6.7# - SLASH DISPOSAL MEASURES *(06/2009)*

Slash resulting from Purchaser's operations shall be removed from lakes, ponds, private land, right-of-way clearings for telephone lines, power lines, pipelines, and other authorized facilities, and landings to be seeded under Special Provision CT6.6#.

The tops of felled trees shall not be left hanging in standing trees. All trees cut or pushed for landing and other construction clearings shall be completely felled and not left leaning. Slash resulting from construction clearing shall be treated concurrent with operations.

Slash Disposal treatment zones are shown on the Sale Area Map with symbol "SDZ."

Other specific slash disposal requirements are as follows:

SDZ -shown on Sale Area Map for Payment Units 001-009: Slash resulting from construction clearing (such as from landings, temporary roads, ROW clearing associated with pre-haul road maintenance requirements listed in CT5.31#), including Specified Road construction, shall be lopped and scattered to lie within 3 feet of the ground. All root wads will be severed from the stem and righted on the ground or otherwise disposed of as directed by the Forest Service, concurrent with operations.

SDZ(2) - shown on the Sale Area Map for Payment Units 001-008: All slash resulting from Purchaser's operations shall either be 1) left at the stump when severed from the merchantable portion of the stem, 2) delimbed in place when bunched with a processor-type equipment prior to skidding/forwarding to a central processing point, or 3) spread back evenly across the payment unit, concurrent with operations.

Logging slash and stumps used in the construction of road closure berms is excluded from the SDZ, and SDZ(2) requirements.

CT7.2 - FIRE PRECAUTIONS *(06/2009)*

Unless other methods are agreed to in writing between the Purchaser and the Contracting Officer, the following specific precautionary measures are applicable during Purchaser's Operations in Fire Precautionary Period indicated in AT9.

1. Purchaser shall maintain Forest Service-approved spark arresting device on any piece of equipment operated by an internal combustion motor. In addition, each piece of motorized equipment shall be equipped with a serviceable round-pointed shovel and an operational fire extinguisher of at least five-pound rating suitable for the equipment being used. All chainsaw operators will have a serviceable round-pointed shovel and a one-pound multipurpose fire extinguisher readily available.

2. Purchaser shall require that smoking and the building of lunch or warming fires by Purchaser's employees, contractors, or employees of contractors be confined to designated safe places where flammable debris has been cleared away and where, at the option of the Purchaser, smoking or the building of lunch or warming fires may be permitted.

3. Adequate spark arresters shall be maintained on chimneys or stovepipes where wood or coal is being burned in an enclosed device.

4. Purchaser shall furnish serviceable firefighting tools. Location, numbers, and types of tools shall be specified in the Fire Prevention and Control Plan in accordance with BT7.1.

CT8.212 - MARKET-RELATED CONTRACT TERM ADDITION *(11/2008)*

The term of this contract may be adjusted when a drastic reduction in wood product prices has occurred in accordance with 36 CFR 223.52. The Producer Price Index used to determine when a drastic reduction in price has occurred is stated in AT17. Purchaser will be notified whenever the Chief determines that a drastic reduction in wood product prices has occurred. If the drastic reduction criteria specified in 36 CFR 223.52 are met for 2 consecutive calendar quarters, after contract award date, Contracting Officer will add 1 year to the contract term, upon Purchaser's written request. For each additional consecutive quarter such a drastic reduction occurs, Contracting Officer will, upon written request, add an additional 3 months to the term during Normal Operating Season, except that no single 3-month addition shall extend the term of the contract by more than one year. Contracting Officer must receive Purchaser's written request for a market-related contract term addition before the expiration of this contract.

No more than 3 years shall be added to a contract's term by market-related contract term addition unless the following conditions are met:

(i) The sale was awarded after December 31, 2006; and

(ii) A drastic reduction in wood product prices occurred in at least ten of twelve consecutive quarters during the contract term, but not including the quarter in which the contract was awarded.

For each qualifying quarter meeting the criteria in paragraphs (i) and (ii) of this provision, the Forest Service will, upon the Purchaser's written request, add an additional 3 months during the normal operating season to the contract, except no single 3-month addition shall extend the term of a contract by more than 1 year.

In no event shall a revised contract term exceed 10 years as a result of market-related contract term addition.

Additional contract time may not be granted for those portions of the contract that have a required completion date or for those portions of the contract where Contracting Officer determines that the timber is in need of urgent removal or that timber deterioration or resource damage may result from delay.

IRON BENDER ROAD MAINTENANCE REQUIREMENTS
FS-2400-6T Contracts (06/06)
CT5.31## Special Provisions

SECTION 1. GENERAL

Purchaser's main Road Maintenance responsibility begins: (1) after Purchaser performs Prehaul Maintenance on a road listed in the Road Maintenance Requirements Schedule; or (2) for all other roads, when Purchaser begins to use the road. Occasional travel by Purchaser's light vehicles, prior to beginning of construction clearing or logging operations in the area accessed by the road, does not constitute beginning of use. Purchaser is not required to perform routine maintenance during periods of inactivity. During periods of inactivity, Forest Service will perform maintenance only as required to meet its needs.

The Purchaser shall maintain roads, commensurate with the Purchaser's use, in accordance with the Road Maintenance Requirements Summary and Road Maintenance Specifications. Performance of road maintenance work by the Purchaser may be required prior to, during, or after each period of use. The timing of work accomplishment shall be based on the Purchaser's operating schedule under Standard Provision **BT6.31**.

If the Purchaser elects to use different roads than those listed in the Road Maintenance Requirements Summary, the Contracting Officer (CO) or designee shall determine the Purchaser's commensurate share of road maintenance and/or revise road maintenance deposits.

Unless the CO or designee agrees in writing, all Prehaul Maintenance requirements shall be completed on any portion of road prior to hauling on that portion.

The Forest Service shall prepare a revised Road Maintenance Requirements Schedule to reflect changes in the original haul routes when needed.

Any work or materials that are determined to no longer be needed and are waived shall have the estimated cost charged to the Timber Sale Account as described in **BT8.31**.

SECTION 2. ROAD MAINTENANCE DEFINITIONS

Wherever the following terms are used in the Road Maintenance Specifications, the meaning shall be:

Base Course. Material placed on the Subgrade to distribute concentrated wheel loads.

Borrow. Select Material taken from designated borrow sites.

Crown, Inslope, and Outslope. The cross slope of the Traveled Way to aid in drainage and traffic maneuverability.

Culverts. A conduit or passageway under a road, trail, or other obstruction. A culvert differs from a bridge in that it is usually entirely below the elevation of the Traveled Way.

Drainage Dip. A dip in the Traveled Way which intercepts surface runoff and diverts the water off the Traveled Way. A Drainage Dip does not block the movement of traffic.

Drainage Structures. Manufactured structures which control the runoff of water from the Roadway including Inslope, overside drains, aprons, flumes, downdrains and downpipes.

During Haul Maintenance. Road maintenance work to be accomplished during the period of timber removal.

Geotextile. A group of construction fabrics with varying attributes designed for different purposes.

Lead-off Ditches. A ditch used to transmit water from a Culvert, Drainage Structure or Drainage Dip outlet to the natural drainage area.

Maintenance Activitiy. Items of work leading to the restoration and upkeep of a road and necessary to sustain the road's anticipated traffic.

Material. Any substance specified for use in the performance of the work.

Post Haul Maintenance. Road maintenance work to be accomplished after timber removal is completed.

Prehaul Maintenance. Road maintenance work to be accomplished prior to the roads use. Roads receiving prehaul maintenance shall be shown on the Sale Area Map.

Road Maintenance Cost. An estimate of the cost to perform road maintenance activities; as determined by the Forest Service. Estimates may include any or all of the work activities listed in Section 4, Road Maintenance Activity Specifications.

Roadbed. The portion of a road between the intersection of Subgrade and sideslopes, excluding that portion of the ditch below Subgrade.

Roadside. A general term denoting the area adjoining the outer edge of the Roadway.

Roadway. The portion of a road within the limits of excavation and embankment.

Sand Hole. A hole that develops in the running surface of the road which is quite soft and dangerous in nature. Usually found in very sandy soils.

Shoulder. That portion of Roadway contiguous with Traveled Way for accommodation of stopped vehicles, for emergency use, and lateral support of Base and Surface Course, if any.

Slide. A concentrated deposit of materials from above or on backslope extending onto the Traveled Way or Shoulders, whether caused by mass land movements or accumulated ravelling.

Slough. Material eroded from the backslope which partially or completely blocks the ditch, but does not encroach on the Traveled Way so as to block passage of traffic.

Slump. A localized portion of the Roadbed which has slipped or otherwise become lower than that of the adjacent Roadbed and constitutes a hazard to traffic.

Subgrade. Top surface of Roadbed upon which Base Course or Surface Course is constructed. For roads without Base Course or Surface Course, that portion of Roadbed prepared as the finished wearing surface.

Surface Course. The Material placed on the Base Course or Subgrade to enhance traction, distribute concentrated wheel loads and resist abrasion and the effects of climate. Surface Course may be referred to as surfacing.

Traveled Way. That portion of Roadway, excluding Shoulders, used for the movement of vehicles.

Turnouts. That portion of the Traveled Way constructed as additional width on single lane roads to allow for safe passing of vehicles.

SECTION 3. ROAD MAINTENANCE REQUIREMENTS SCHEDULE

See Summary in **CT 5.31#**.

SECTION 4. ROAD MAINTENANCE SPECIFICATIONS

INCLUDED SPECIFICATIONS

Specification No.	Specification Title
T-8030	Snow Removal
T-8110	Maintenance Blading/Grading
T-8130	Spot Surface Course Placement/Replenishment
T-8310	Ditch Cleaning
T-8340	Drainage Structure Maintenance
T-8350	Roadway Drainage Maintenance
T-8360	Composite High Clearance Road Maintenance
T-8420	Cutting Roadway Vegetation
T-8620	Miscellaneous Maintenance

T-8030 Snow Removal

DESCRIPTION

1.1 This Section provides for removal of snow from roads to facilitate logging operations and safe use. Remove snow from all or part of the traveled way, including sufficient turnouts for safe and efficient use for timber transportation and to protect the road. Remove intruding windfalls, debris or slough and slide material and dispose of only as necessary to provide passage for timber transportation. Removed materials may be deposited off the traveled way or outside the traveled way at locations designated by the Forest Service Representative (FSR). Snow may also be compacted as needed to freeze down soft areas or wet areas. This work is considered part of this specification. Equipment used for this work shall be in accordance with this specification and approved in advance by the FSR.

IRON BENDER ROAD MAINTENANCE REQUIREMENTS
FS-2400-6T Contracts (06/06)
CT5.31## Special Provisions

EQUIPMENT

2.1 Purchaser may use any type of equipment to remove snow, providing:

a. Type or use of equipment is not restricted in **CT5.12#** or Schedule document.

b. Equipment is of the size and type commonly used to remove snow and will not cause damage to the road. Tracked or cleated vehicles shall not be used unless approved in writing by the FSR.

c. The Blade will be equipped with skid shoes to prevent loss of surfacing and damage to the road bed. On gravel and native surface roads, a minimum **_4_** -inch depth compacted snow mat will be maintained on the roadbed during blading.

REQUIREMENTS

3.1 Erect signs required by the Sign Plan in the SUPPLEMENTAL SPECIFICATIONS or as shown on the Section 3. Road Maintenance Requirements Schedule. Perform work in a manner to preserve and protect roads and appurtenances, and prevent erosion damage to roads, streams, and other forest values.

3.2 Space, construct, and maintain drainage holes in the dike of snow or berm caused by snow removal operations. Place drain holes to obtain surface drainage without discharging on erodible fills.

3.3 Upon seasonal completion of Purchaser's Operations, effectively block the road by a snow barricade, unless otherwise approved by the Contracting Officer.

3.4 Ice control may be performed by Purchaser when approved by the FSR in writing. Such approval will include ice control materials, application rates, and any specific requirements of use.

3.5 Snow berms will be reduced at road intersections where plowed road segments join unplowed road segments. Reduce the piled snow in the roadway to create a smooth transition from plowed road to normal snow depth.

T-8110 Maintenance Blading/Grading

DESCRIPTION

1.1 Maintenance Blading/Grading is keeping an aggregate surfaced Roadbed in a condition to facilitate traffic and provide proper drainage. It includes maintaining the Crown, Inslope or Outslope of the Traveled Way, Turnouts, and Shoulder; repairing Berms; blending approach road intersections; and cleaning Drainage Dips and Lead-off Ditches.

IRON BENDER ROAD MAINTENANCE REQUIREMENTS
FS-2400-6T Contracts (06/06)
CT5.31## Special Provisions

EQUIPMENT

2.1 The equipment required to shape, spread, and compact surfacing is listed below.

Road Number	Road Termini - From	Road Termini - To	Equipment Description
1100	POB	10.7	Motor-grader (or equivalent)

POB – Point of Beginning
POE – Point of Ending

REQUIREMENTS

3.1 Maintenance Blading/Grading shall be performed to facilitate traffic and proper drainage before, during, or after Purchaser's use as required by Section 3. Road Maintenance Requirements Schedule.

3.2 The surface blading shall preserve the existing cross-section. Surface irregularities shall be eliminated and the surface left in a smooth, free-draining state needed to facilitate traffic. Surface Course Material which has been displaced to the Shoulders or Turnouts shall be returned to the Traveled Way. The blading operation shall be conducted to conserve Surface Material and to provide for a thorough mixing of the Material being worked.

3.3 On aggregate surfaced roads Material generated from back slope Sloughing and ditch cleaning shall not be blended with Surface or Base Course Material unless agreed otherwise

3.4 Roadway back slopes shall not be undercut.

3.5 Drainage Dips and Lead-off Ditches shall be cleaned and maintained to retain the existing line, grade, and cross-section.

3.6 Intersecting roads shall be bladed for a distance of 50 feet to assure blending of the surfaces.

3.7 Rocks or other Material remaining on the Traveled Way after the final pass that are 4 inches in diameter or larger shall be removed. The unsuitable Material shall be disposed of by side casting unless agreed otherwise. Side casting into streams, lakes, or water courses will not be permitted.

3.8 Material resulting from this activity shall not remain on or in structures, such as Culverts, cattle guards, ditches, bridges, and Drainage Dips.

3.9 Material resulting from this activity, plus any accumulated debris, shall be removed from roadway structures, such as concrete low-water crossings or fords.

IRON BENDER ROAD MAINTENANCE REQUIREMENTS
FS-2400-6T Contracts (06/06)
CT5.31## Special Provisions

T-8130 Spot Surface Course Placement/Replenishment

DESCRIPTION

1.1 Spot Surface Course Placement/Replenishment includes Subgrade preparation, furnishing, hauling, spreading and shaping materials in accordance with the requirements.

MATERIALS

2.1 Surface Course Material will be in accordance with the subsection 3.2 of these specifications. Only commercial sources of aggregate will be accepted, except surfacing material may also be purchased from the government, where available, by filling out a form 2600, paying the required fees, and obtaining a permit.

REQUIREMENTS

3.1 Subgrade Preparation. Prepare Subgrade to receive Surface Course Material at locations as designated on-the-ground by the Forest Service on roads listed below. Prepare the Subgrade by shaping the Roadbed to approximately the original cross-section and consistent with adjacent sections.

3.2 Furnish, haul and spread Material at locations designated on the ground by the Forest Service (FS). Compact the aggregate by operating spreading and hauling equipment over the full width of each layer of the aggregate, or by other methods as specified below.

Road Number	Type Material	Finished Compacted Thickness Specified	Total Quantity (Tons or cu.yds.)	Compaction Method
1157 (MP 0.06)	Local Borrow, Left	Placed as directed between MP's 0.02 – 0.07	60 CY	See 3.2 Above
1157 (MP 0.01 – 0.09)	Pit Run Gravel[1/]	12'W x 8"D	150 CY (195 CY)[2/]	See 3.2 Above
1157 (MP 0.49)	Pit Run Gravel[1/]	As Directed to Surface Intersection of FR 1157-A	70 CY (91 CY)[2/]	See 3.2 Above
Maintenance Segments, As Agreed	**Pit Run Gravel[1/]**	**To Be Placed as Directed by USFS (During Haul Road Maintenance).**	**60 CY (78 CY)[2/]**	**See 3.2 Above**

[1/]Onion Creek Pit, as shown on Sale Area Map
[2/]Quantity of Material in ( ) = Approximate Loose Volume

3.3 Variations. The Purchaser will be required to furnish weight tickets to the FS for each load of commercially obtained crushed aggregate prior to the final inspection. For aggregate purchased from the government, a count of truck loads will be required in addition to finished depth checks for the placed and compacted aggregate**.** Widths and lengths will be as staked or from schedule. When it is mutually agreed that all or part of the Surface Course

Material is not needed, the estimated cost of surfacing not placed shall be charged to the Timber Sale Account in accordance with **BT8.31**.

T-8310 Ditch Cleaning

DESCRIPTION

1.1 Ditch cleaning is the removal and disposal of all accumulated organic and Slough Material from Roadway ditches to provide a positive draining waterway of uniform width, depth, and grade.

REQUIREMENTS

3.1 Ditch cleaning shall be repeated during sale operations as often as necessary to facilitate proper drainage.

3.2 All Slough Material or other debris which might obstruct water flow in the Roadway ditch shall be removed. Material removed from ditches that are not suitable for blending into the existing surface course shall be disposed of in places agreed to in writing by the FSR.

3.3 Roadway back slopes shall not be undercut.

T-8340 Drainage Structure Maintenance

DESCRIPTION

1.1 This work consists of maintaining and/or installation/removal of Drainage Structures and related items such as: inlet and outlet channels, existing riprap, trash racks, necessary geotextiles, pipes, and drop-inlets.

MATERIALS

2.1 All Materials used in the maintenance and/or installation/removal of Drainage Structures shall conform by type and specification to the Material in the structure being maintained or as indicated in the subsection 3.3 below.

REQUIREMENTS

3.1 Drainage Structures and related items shall be cleared of all foreign Material deposited above the bottom of the structure and all vegetative growth which interferes with the water flow. Material removed that cannot be incorporated into maintenance work shall be uniformly placed on fill slopes unless agreed otherwise.

3.2 Perform maintenance to insure the proper functioning of the head walls, aprons, inlet assemblies, riprap, trash racks and other facilities related to the Drainage Structure.

3.3 Install/remove ditches, drainage dips, rock crossings and/or culverts as shown below, and as marked on the ground. Installation of structures shall not begin without the presence of a FSR unless agreed to in writing by the FSR.

Road Number	Location	Remove/Install	Type of Structure	Size	Quantity
1157	MP 0.01	Protect	Culvert	Existing	1
1157	MP 0.08	Protect	Culvert	Existing	1

3.4 Installation shall be in accordance with construction industry standards and practices.

3.5 Culverts designated for removal/disposal shall become the property of the Purchaser and shall be disposed of properly.

3.6 Temporary culverts provided by the USFS shall remain the property of the government.

3.7 Bridges. Any miscellaneous parts needing repair or replacement during normal use of any bridge during haul shall be considered maintenance. This includes minor items such as object markers, running planks that have loosened or cracked deck boards, or drainage structures which may become plugged. Bridge decks that are dirt and dust covered shall be cleaned to allow for proper drainage and for safety of the user.

T-8350 Roadway Drainage Maintenance

DESCRIPTION

1.1 This work consists of providing Post Haul drainage on roads.

MATERIALS

2.1 All Materials used in the maintenance and/or installation/removal of Drainage Structures shall conform by type and specification to the Material in the structure being maintained, or as indicated in subsection 3.3.

REQUIREMENTS

3.1 Upon completion of work, shape the roadway to provide for the removal of surface water. The roadway need not be passable to vehicles (ML-1 roads). Repair and reinstall waterbars, barriers or berms existing prior to the Purchaser's operation. Areas where water is ponded by existing centerline profile sags in through cuts may be left untreated.

3.2 Any of the following methods are acceptable for use at eroded or rutted locations:

(a) Method A: Outsloping the roadbed at not less than ½ inch per yard of width.
(b) Method B: Insloping the roadbed at not less than ½ inch per yard of width.
(c) Method C: Water bar roadbed at locations staked on the ground and construct as shown on the enclosed detail.
(d) Method D: Crown the roadbed as shown in the attached detail as the typical section for that length of road.

3.3 Drainage structures located in roadbed through fills and natural watercourses shall be fully functional without obstructions, including inlet and outlet channel within 20 feet of the structure **(all structures within termini indicated in CT5.31# Summary Table).**

3.5 Entrance Devices. Upon completion of work, replace entrance devices to effectively eliminate access by motorized vehicles (ML-1).

3.6 Seed and fertilize all disturbed areas in accordance with requirements set forth in T-8410 Vegetation Establishment.

T-8360 Composite High Clearance Road Maintenance

DESCRIPTION

1.1 This work consists of making limited use roads passable for project use by Purchaser and providing drainage from the traveled way and roadbed.

MATERIALS

2.1 Required materials are listed in subsection 3.2.

REQUIREMENTS

3.1 Traveled Way

A. Purchaser may smooth or fill existing cross ditches and waterbars and, by agreement, modify existing road junction to enable vehicle access. Prior to beginning haul and resumption of haul after an extended stoppage:

1. Remove brush, fallen trees, rocks, and other debris from traveled way, including turnouts, turnarounds, and other locations that interfere with needed maintenance. No object extending over 4 inches above the road surface shall remain within the 12 feet usable traveled way.
2. Center the usable width of the roadbed or position away from the fill slope.
3. Cut and remove standing or down trees, logs, brush, and limbs from within the 12 feet usable traveled way. Remove encroaching limbs to a height of 14 feet above the traveled way surface. Scatter material not meeting utilization standards outside and below the roadbed on the fill side. Limb and remove designated timber which meets utilization standards or deck at agreed locations.
4. Place all removed material away from drainages and in locations previously agreed to in writing by the FSR.

5. During use, maintain drainage structures including dips, ditches and culverts in a usable condition and surface in a flat, Insloped or Outsloped, or Crowned usable condition.

3.2 Drainage Facilities. Clean and recondition drainage facilities in accordance with T-8310 Ditch Cleaning and T-8340 Drainage Structure Maintenance. **Maintain all other structures per 3.1, item 5 above within termini indicated in CT5.31# Summary Table.**

3.3 Slough and Slides

1. Slough and Slides may be left in place provided surface drainage is adequately provided and at least 12 feet of width is available for vehicle passage.
2. Purchaser may reposition or ramp over Slides and Slough when the Traveled Way is less than 12 feet providing the material is capable of supporting vehicles. Limit Outslope to no more than six percent.
3. Reposition Slough or Slide materials, which are not capable of supporting a vehicle, on the roadbed to provide the 12 feet width. When directed by Forest Service, Slough or Slide material will be removed under Section T-8320 Slide, Slump, and Erosion Repair.

3.4 Slumps, Eroded areas, and Washouts

1. Drain the roadbed immediately upgrade of Slumps and longitudinal cracks to prevent water from entering Slump area.
2. Slumps and longitudinal cracks at the edge of the roadbed shall not be considered a part of the usable width. Usable width may be reduced to ten feet in the area of the Slump.
3. Unless Forest Service agrees to material being placed on Slumps, ramp the Slumps on both ends into undisturbed roadbed to provide at least ten feet usable width. Use removed materials to guide vehicles to the ramp location or to aid in draining the area.
4. Eroded areas/washouts may be filled with suitable material and compacted by operating equipment over the fill area.

3.5 Posthaul

A. At the end of hauling or prior to entering into seasonal shutdowns or a period of extended inactivity:

1. Shape the traveled way and disturbed roadbed to provide functional drainage.
2. Reinstall removed cross ditches and waterbars and provide any additional drainage structures necessary to offset changes caused through use and maintenance.
3. Leave roads useable for high clearance vehicles. Remove or reshape Purchaser modifications at road junctions to leave the entrance as it was before use, or as agreed at the time of improvement.
4. Close all roads which were closed prieviously, using prior existing methodology.

IRON BENDER ROAD MAINTENANCE REQUIREMENTS
FS-2400-6T Contracts (06/06)
CT5.31## Special Provisions

T-8420 Cutting Roadway Vegetation

DESCRIPTION

1.1 This work includes removal of brush, trees and other vegetative growth from within the clearing limits. This may include brush mowing of shoulders to prevent larger growth which would inhibit travel in the future.

EQUIPMENT

2.2 Equipment use may include farm tractor mounted mowing or brushing equipment.
If brushing equipment is required it must be of a size and power to cut off and masticate stems up to four inches in diameter. Larger growth may require hand clearing with a chainsaw or mechanized equipment able to handle larger trees.

REQUIREMENTS

3.1 Vegetative matter within the Roadway which impedes vehicular travel, and/or interferes with road maintenance operations, such as surface blading and ditch and culvert cleaning shall be removed. Downed timber meeting utilization standards shall be cut in appropriate lengths and decked in locations where agreed upon and the Traveled Way or sight distances will not be impaired.

3.2 Vegetative matter removed from the clearing limits shall be scattered outside the clearing limits at least 3 (and lopped to within 3 feet of ground) feet perpendicular to the road surface.

3.3 Trim tree branches that extend over the road surface and shoulders to attain a clear height of 14 feet. Trim branches flush with the tree or as close as possible without causing damage or scarring to the bole. Area shall be left neatly trimmed.

3.4 Any stump removed shall be placed in an upright position out of the clearing limits.

3.5 Area shall not be left in an unsightly condition. The FSR shall have the final say over how the area is left.

T-8620 Miscellaneous Maintenance

DESCRIPTION

1.1 Maintenance of miscellaneous structures includes cattle guards, gates (this includes all types of closure devices such as logs, rocks, dirt berms, dirt and slash berms, metal gates, etc),

signs, and other similar structures that have been previously installed to insure safe and efficient operation of the road.

MATERIALS

2.1 Any Materials needed in the maintenance of miscellaneous structures shall be similar in type and quality to the Material in the structure being maintained.

REQUIREMENTS

3.1 Cattle guards. Loose rails shall be welded or bolted back in place.
Excess Material carried into the cattle guard shall be removed when drainage is blocked or when it reaches six inches from the bottom of the cattle guard frame. Drainage into and from the cattle guard shall be kept open.

3.2 Gates (and other closure devices). Gates shall be kept in good repair and made to swing easily. Hinges or latches shall be repaired if not operating properly. Brush and debris shall be removed from within the swinging radius. Weathered berms or wood piles shall be reconstructed to a height which discourages use and blocks the road.

3.3 Signs. Any signs needing repair or replacement shall be installed per sign placement detail or MUTCD direction. All roads shall have legible sign numbers. ML 3-5 roads shall have horizontal numbering and ML 1-2 roads shall have vertical numbers. The material used shall be as directed by the Forest Service Representative. All new signs must meet retro reflectivity requirements.

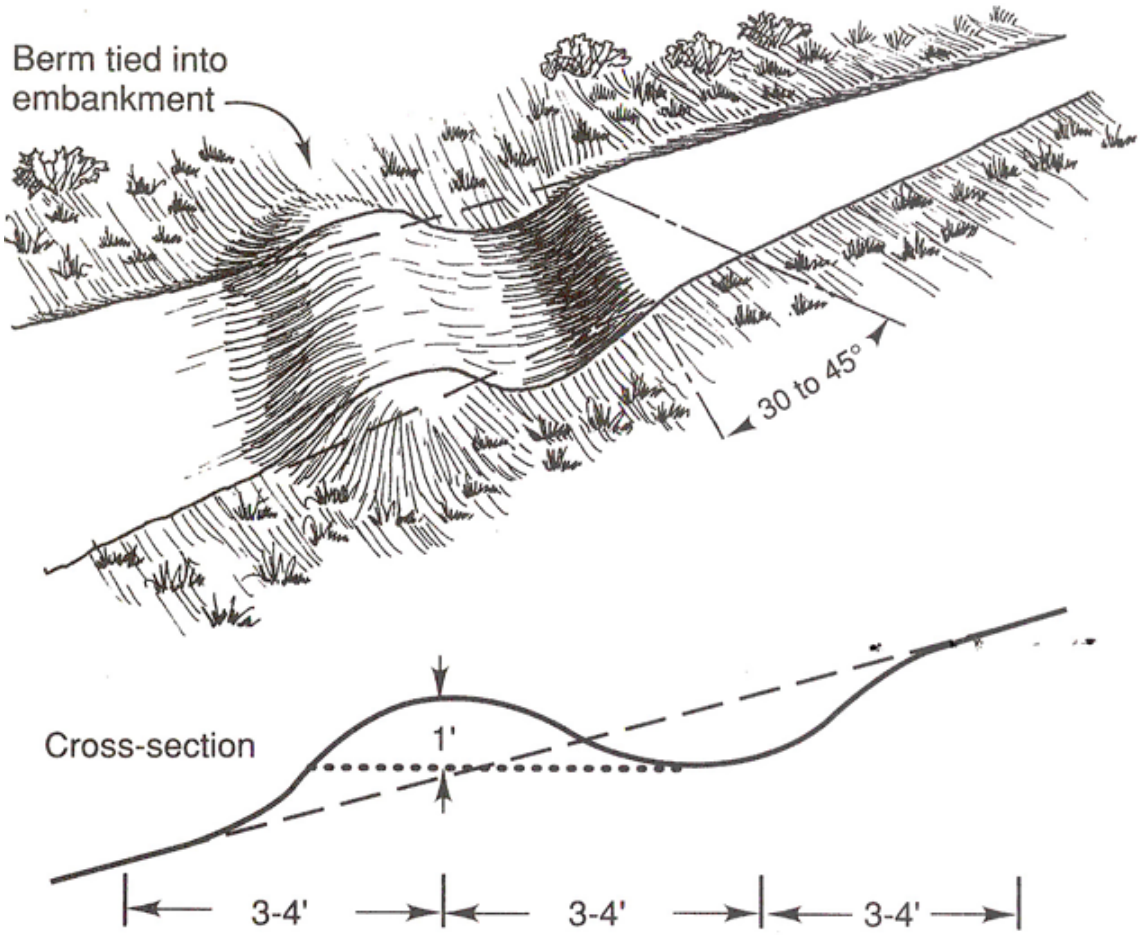
Road Number	Road Name	Location	Remove/Install	Type of Item	Size	Quantity
1100-R	1100-R	MP 0.01	Install	Earthen Berm[1/]	[2/]	1
1157	1157	MP 0.40	Install	Earthen Berm[1/]	[2/]	1
1157	1157	MP 0.54	Remove	Earthen Berm		1
1157-A	1157-A	POE	Install	Earthen Berm[1/]	[2/]	1
1157-AA	1157-AA	MP 0.01	Install	Earthen Berm	[2/]	1

[1/] ATV Passable Berm

[2/] Per Typical Drawing—Earthen Berms/Road Closure Devices

IRON BENDER ROAD MAINTENANCE REQUIREMENTS
FS-2400-6T Contracts (06/06)
CT5.31## Special Provisions

Earthen Berms/Road Closure Devices (Typical Drawing)



Earth berm/water bars are narrow, earthen ridges built across roads or trails. They divert water off and away from roads or trails into vegetated areas before it causes erosion. When properly built, they prevent exposed soil from moving, protecting the area until grass vegetation is firmly established.

As shown in the above drawing, the berm/water bar should be placed at an angle of 30 to 45 degrees, relative to the road, to allow for runoff to drain from the inlet, through the trench, and into the adjacent forest floor or vegetation.

Dig a trench, 12 to 18 inches below the surface of the road or trail, and extend it beyond both sides of the road or trail to prevent runoff from bypassing the water bar. The uphill end of the water bar should extend beyond the side ditch of the road and into an earth-berm to fully intercept any ditch flows. The outflow end of the water bar is to be fully open and extended far enough beyond the edge of the road or trail to safely disperse runoff water onto the undisturbed forest floor. When placement of the closure device does not require the berm to also function as a water bar for drainage, the trench will not be required.

Height of the berm will be approximately 4 feet. Rocks/boulders, logging slash, cull logs, and stumps may be incorporated into the ridge of earth during construction of the berm as long as proper drainage will be maintained and the road is completely blocked, unless otherwise agreed in writing.

IRON BENDER PR TIMBER SALE
SPECIFIED ROAD SCHEDULE OF ITEMS

Item Number	Item Description & Milepost	C or R[1]	Road Std. (W,D,S)[2]	Unit & M of M[3]	Quantity	Unit Allowance	Estimated Allowance
	FR 1100-R	**R**	**D/W**				
	MP 0.0-0.26						
249(02)	Composite Road Construction: Reconstruct existing road in accordance with the specifications and standard plans.			Mile DQ	0.26	$ 3,500.00	$ 910.00
	MP 0.0-0.02						
249(05)	Additional excavation required to reconstruct entrance. Place excess material on old entrance to the north.			CY DQ	150	$ 5.00	$ 750.00
	MP 0.0-0.01						
301(13)	Furnish, haul and place 30 CY of crushed aggregate to surface entrance. (39 CY loose material)			CY DQ	30	$ 25.00	$ 750.00
	MP 0.11						
301(22)	Haul and place 70 CY of pitrun to surface the intersection of FR 1100-R1. (91 CY loose material)			CY DQ	70	$ 15.00	$ 1,050.00
	FR 1100-R TOTAL SPECIFIED ROAD SCHEDULE OF ITEMS						**$ 3,460.00**
	FR 1100-R1	**C**	**D/W**				
	MP 0.00-0.10						
249(02)	Composite Road Construction: Construct new road in accordance with the specifications and standard plans.			Mile DQ	0.1	$ 5,500.00	$ 550.00
	MP 0.04						
301(22)	Haul and place 20 CY of pitrun to stabilize drainage dip. Shape to drain to the left. (26 CY loose material)			CY DQ	20	$ 15.00	$ 300.00
	FR 1100-R1TOTAL SPECIFIED ROAD SCHEDULE OF ITEMS						**$ 850.00**
	FR 1157-AA	**R**	**W**				
	MP 0.0-0.39						
249(02)	Composite Road Construction: Reconstruct existing road in accordance with the specifications and standard plans.			Mile DQ	0.39	$ 3,500.00	$ 1,365.00
	FR 1157-AA TOTAL SPECIFIED ROAD SCHEDULE OF ITEMS						**$ 1,365.00**

[1]C = Construction, R = Reconstruction
[2]W = Winter, D = Dry Summer, S = Summer
[3]Method of Measure

Prepared By: Tom Roberts 3/9/2016
Civil Engineering Technician

IRON BENDER PR TIMBER SALE
SPECIFIED ROAD SCHEDULE OF ITEMS

Item Number	Item Description & Milepost	C or R[1]	Road Std. (W,D,S)[2]	Unit & M of M[3]	Quantity	Unit Allowance	Estimated Allowance
	FR 1157-A	**R**	**D/W**				
	MP 0.0-0.35						
249(02)	Composite Road Construction: Reconstruct existing road in accordance with the specifications and standard plans.			Mile DQ	0.35	$ 3,500.00	$ 1,225.00
301(22)	Haul and place 70 CY of pitrun to surface the intersection of FR 1157-A1. (91 CY loose material)			CY DQ	70	$ 15.00	$ 1,050.00
	FR 1157-A TOTAL SPECIFIED ROAD SCHEDULE OF ITEMS						**$ 2,275.00**
	FR 1157-A1	**C**	**D/W**				
	MP 0.0-0.23						
249(02)	Composite Road Construction: Construct new road in accordance with the specifications and standard plans.			Mile DQ	0.23	$ 5,500.00	$ 1,265.00
	FR 1157-A1 TOTAL SPECIFIED ROAD SCHEDULE OF ITEMS						**$ 1,265.00**
	IRON BENDER TS TOTAL SPECIFIED ROAD SCHEDULE OF ITEMS						**$ 9,215.00**

[1]C = Construction, R = Reconstruction
[2]W = Winter, D = Dry Summer, S = Summer
[3]Method of Measure

Prepared By: Tom Roberts 3/9/2016
Civil Engineering Technician

IRON BENDER PR TIMBER SALE
SPECIFIED ROAD SCHEDULE OF ITEMS

Item Number	Item Description & Milepost	C or R[1]	Road Std. (W,D,S)[2]	Unit & M of M[3]	Quantity	Unit Allowance	Estimated Allowance
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	MP 0.11						
301(22)	Haul and place 70 CY of pitrun to surface the intersection of FR 1100-R1. (91 CY loose material)			CY DQ	70	$ 15.00	$ 1,050.00
	FR 1100-R TOTAL SPECIFIED ROAD SCHEDULE OF ITEMS						**$ 3,460.00**
	FR 1100-R1	**C**	**D/W**				
	MP 0.00-0.10						
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	FR 1100-R1TOTAL SPECIFIED ROAD SCHEDULE OF ITEMS						**$ 850.00**
	FR 1157-AA	**R**	**W**				
	MP 0.0-0.39						
249(02)	Composite Road Construction: Reconstruct existing road in accordance with the specifications and standard plans.			Mile DQ	0.39	$ 3,500.00	$ 1,365.00
	FR 1157-AA TOTAL SPECIFIED ROAD SCHEDULE OF ITEMS						**$ 1,365.00**

[1]C = Construction, R = Reconstruction
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[3]Method of Measure

Prepared By: Tom Roberts 3/9/2016
Civil Engineering Technician

IRON BENDER PR TIMBER SALE
SPECIFIED ROAD SCHEDULE OF ITEMS

Item Number	Item Description & Milepost	C or R[1]	Road Std. (W,D,S)[2]	Unit & M of M[3]	Quantity	Unit Allowance	Estimated Allowance
	FR 1157-A	**R**	**D/W**				
	MP 0.0-0.35						
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[1]C = Construction, R = Reconstruction
[2]W = Winter, D = Dry Summer, S = Summer
[3]Method of Measure

Prepared By: Tom Roberts 3/9/2016
Civil Engineering Technician

Standard Specifications for Construction of Roads & Bridges on Federal Highway Projects

Specification List

Project Name IRON BENDER PR TIMBER SALE

Date Prepared 03/09/16

Road Number	FR 1100-R FR 1100-R1		**FR 1100-R**	**FR 1100-R1**	
		Termini…..	0.0-0.26	0.0-0.10	
		Construction Reconstruction	0.26	0.10	
Spec. No.	**Title**				Latest Revised Edition
101 thru 109	General Requirements		X	X	2003
301	Aggregate Courses		X	X	2003

NOTE: The Forest Service, US Department of Agriculture has adopted FP-03 for Construction of National Forest System Roads.

Standard Specifications for Construction of Roads & Bridges on Federal Highway Projects

Specification List

Project Name IRON BENDER PR TIMBER SALE

Date Prepared 03/09/16

Road Number	FR 1157-AA FR 1157-A		**FR 1157-AA**	**FR 1157-A**	
		Termini…..	0.0-0.39	0.0-0.35	
		Construction Reconstruction	0.39	0.35	
Spec. No.	**Title**				Latest Revised Edition
101 thru 109	General Requirements		X	X	2003
301	Aggregate Courses			X	2003

NOTE: The Forest Service, US Department of Agriculture has adopted FP-03 for Construction of National Forest System Roads.

Standard Specifications for Construction of Roads & Bridges on Federal Highway Projects

Specification List

Project Name IRON BENDER PR TIMBER SALE

Date Prepared 03/09 /16

Road Number	FR 1157-A1		**FR 1157-A1**		
		Termini…..	0.0-0.23		
		Construction Reconstruction	0.23		
Spec. No.	**Title**				Latest Revised Edition
101 thru 109	General Requirements		X		2003

NOTE: The Forest Service, US Department of Agriculture has adopted FP-03 for Construction of National Forest System Roads.

IRON BENDER PR TIMBER SALE

SUPPLEMENTAL SPECIFICATIONS

Section 101-109 General Requirements

Section 249 Composite Road Construction

Section 301 Aggregate Courses

Preface

Preface_wo_03_15_2004_m

Delete all but the first paragraph and add the following:

The Forest Service, US Department of Agriculture has adopted FP-03 for construction of National Forest System Roads.

101 - Terms, Format, and Definitions

101.00_nat_us_07_25_2005

101.01_nat_us_01_22_2009

101.01 Meaning of Terms

Delete all references to the TAR (Transportation Acquisition Regulations) in the specifications.

101.01_nat_us_01_22_2009

101.01 Meaning of Terms

Delete all references to the FAR (Federal Acquisition Regulations) in the specifications.

101.03_nat_us_06_16_2006

101.03 Abbreviations.

Add the following to (a) Acronyms:

AFPA	American Forest and Paper Association
MSHA	Mine Safety and Health Administration
NIST	National Institute of Standards and Technology
NESC	National Electrical Safety Code
WCLIB	West Coast Lumber Inspection Bureau

.

Add the following to (b) SI symbols:

mp	Milepost
ppm	Part Per Million

101.04_nat_us_03_29_2007

101.04 Definitions.

Delete the following definitions and substitute the following:

Bid Schedule--The Schedule of Items.

Bridge--No definition.

Contractor--The individual or legal entity contracting with the Government for performance of prescribed work. In a timber sale contract, the contractor is the "purchaser".

Culvert--No definition.

Right-of-Way--A general term denoting (1) the privilege to pass over land in some particular line (including easement, lease, permit, or license to occupy, use, or traverse public or private lands), or (2) Real property necessary for the project, including roadway, buffer areas, access, and drainage areas.

Add the following:

Adjustment in Contract Price--"Equitable adjustment," as used in the Federal Acquisition Regulations, or "construction cost adjustment," as used in the Timber Sale Contract, as applicable.

Change--"Change" means "change order" as used in the Federal Acquisition Regulations, or "design change" as used in the Timber Sale Contract.

Design Quantity--"Design quantity" is a Forest Service method of measurement from the FS-96 *Forest Service Specifications for the Construction of Roads and Bridges.* Under these FP specifications this term is replaced by the term "Contract Quantities".

Forest Service--The United States of America, acting through the Forest Service, U.S. Department of Agriculture.

Neat Line--A line defining the proposed or specified limits of an excavation or structure.

Pioneer Road--Temporary construction access built along the route of the project.

Purchaser--The individual, partnership, joint venture, or corporation contracting with the Government under the terms of a Timber Sale Contract and acting independently or through agents, employees, or subcontractors.

Protected Streamcourse--A drainage shown on the plans or timber sale area map that requires designated mitigation measures.

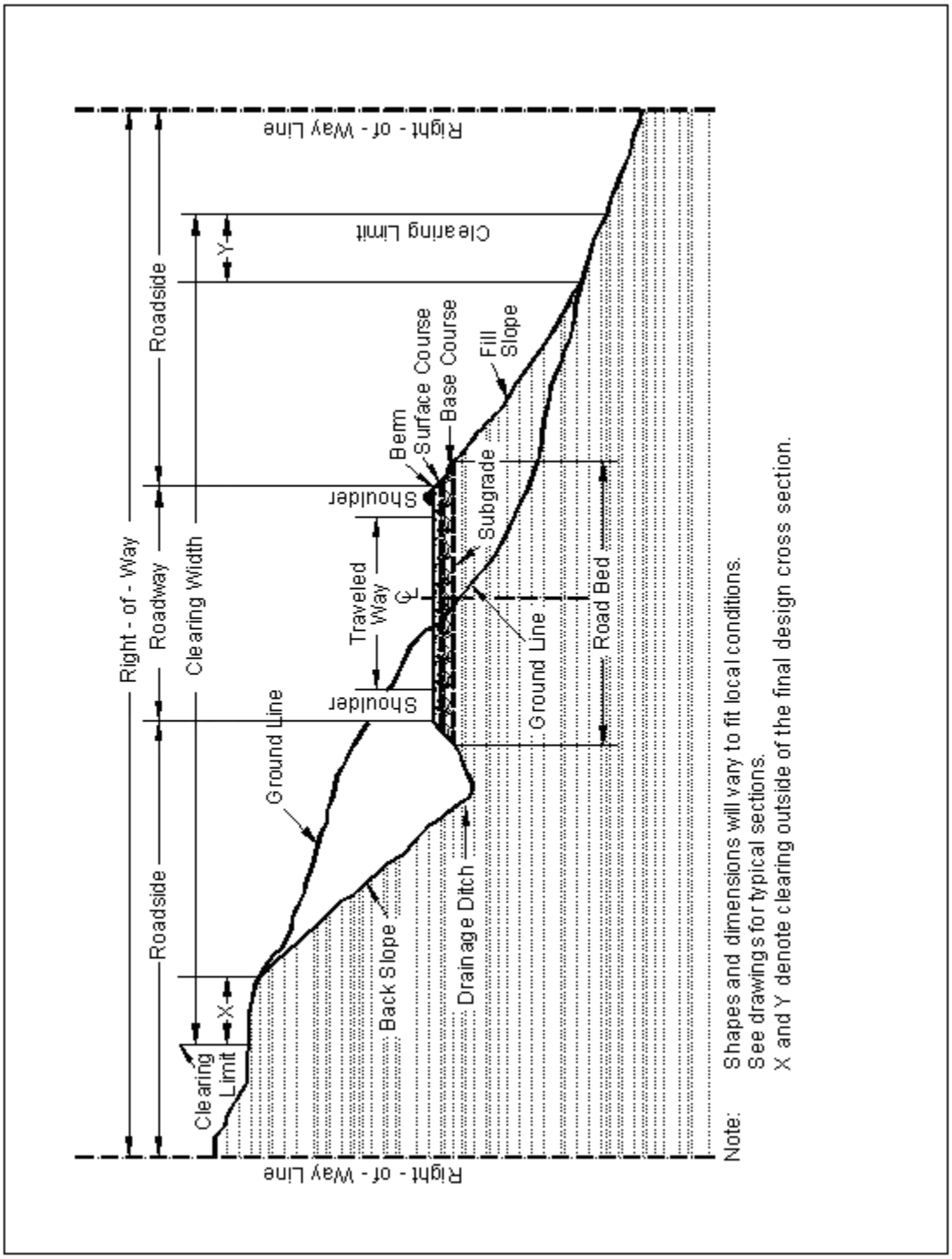
Road Order--An order affecting and controlling traffic on roads under Forest Service jurisdiction. Road Orders are issued by a designated Forest Officer under the authorities of 36 CFR, part 260.

Schedule of Items--A schedule in the contract that contains a listing and description of construction items, quantities, units of measure, unit price, and amount.

Utilization Standards--The minimum size and percent soundness of trees described in the specifications to determine merchantable timber.

Add Figure 101-1—Illustration of road structure terms:

Figure 101-1—Illustration of road structure terms.



101.04_nat_us_11_06_2007

101.04 Definitions.

Delete the following definitions:

Contract Modification

Day

Notice to Proceed

Solicitation

102 - Bid, Award, and Execution of Contract

102.00_nat_us_02_16_2005

102 Bid, Award, and Execution of Contract

Delete Section 102 in its entirety.

103 - Scope of Work

103.00_nat_us_02_16_2005

Deletions

Delete all but subsection 103.01 Intent of Contract.

104 - Control of Work

104.00_nat_us_06_16_2006

Deletions

Delete Sections 104.01, 104.02, and 104.04.

104.03_nat_us_02_22_2005

104.03 Drawings and Specifications

Delete subsection 104.03

104.03_nat_us_01_22_2009

104.03 Specifications and Drawings.

Delete 104.03.

104.03_nat_us_02_22_2005

104.06 Use of Roads by Contractor

The Contractor is authorized to use roads under the jurisdiction of the Forest Service for all activities necessary to complete this contract, subject to the limitations and authorizations designated in the Road Order(s) or described in the contract, when such use will not damage the roads or national forest resources, and when traffic can be accommodated safely.

104.07_nat_us_02_17_2005

Add Subsection.

105 - Control of Material

105.02_nat_us_01_18_2007

105.02 Material Sources.

105.02(a) Government-provided sources.

Add the following:

Comply with the requirements of 30 CFR 56, subparts B and H. Use all suitable material for aggregate regardless of size unless otherwise designated. When required, re-establish vegetation in disturbed areas according to section 625.

Government-provided optional sources for this project are identified as follows:

Material is available for use as (Borrow/pitrun surfacing material) as needed for the project from **Onion Creek Pit, T48N, R37W, Sec 6.**

There is no charge for material taken from these pits for use on this project.

105.02_nat_us_02_17_2005

105.05 Use of Material Found in the Work.

Delete 105.05 (a) and (b) and the last sentence of the second paragraph and substitute the following:

Materials produced or processed from Government lands in excess of the quantities required for performance of this contract are the property of the Government. The Government is not obligated to make reimbursement for the cost of producing these materials.

106 - Acceptance of Work

106.01_nat_us_01_17_2013

106.01 Conformity with Contract Requirements.

Delete Subsection 106.01 and substitute the following:

References to standard test methods of AASHTO, ASTM, GSA, and other recognized standard authorities refer to the methods in effect on the date of solicitation for bids.

Perform all work to the lines, grades, cross-sections, dimensions, and processes or material requirements shown on the plans or specified in the contract.

Incorporate manufactured materials into the work according to the manufacturer's recommendations or to these specifications, whichever is more strict.

Plan dimensions and contract specification values are the values to be strived for and complied with as the design values from which any deviations are allowed. Perform work and provide material that is uniform in character and reasonably close to the prescribed value or within the specified tolerance range. The purpose of a tolerance range is to accommodate occasional minor variations from the median zone that are unavoidable for practical reasons.

When standard manufactured items are specified (such as fence, wire, plates, rolled shapes, pipe conduits, etc., that are identified by gauge, unit mass, section dimensions, etc.), the identification will be considered to be nominal masses or dimensions. Unless specific contract tolerances are noted, established manufacturing tolerances will be accepted.

The Government may inspect, sample, or test all work at any time before final acceptance of the project. When the Government tests work, copies of test reports are furnished to the Contractor upon request. Government tests may or may not be performed at the work site. If Contractor testing and inspection is verified by the Government, the Contractor's results may be used by the

Government to evaluate work for acceptance. Do not rely on the availability of Government test results for process control.

Acceptable work conforming to the contract will be paid for at the contract unit bid price. Four methods of determining conformity and accepting work are described in Subsections 106.02 to 106.05 inclusive. The primary method of acceptance is specified in each Section of work. However, work may be rejected at any time it is found by any of the methods not to comply with the contract.

Remove and replace work that does not conform to the contract, or to prevailing industry standards where no specific contract requirements are noted, at no cost to the Government.

(a) Disputing Government test results. **If the accuracy of Government test results is disputed, promptly inform the CO. If the dispute is unresolved after reasonable steps are taken to resolve the dispute, further evaluation may be obtained by written request. Include a narrative describing the dispute and a proposed resolution protocol that addresses the following:**

(1) Sampling method;

(2) Number of samples;
(3) Sample transport;
(4) Test procedures;
(5) Testing laboratories;
(6) Reporting;
(7) Estimated time and costs; and
(8) Validation process.

If the evaluation requires additional sampling or testing be performed, mutually agree with the Government on witnessing procedures and on sampling and testing by a third party laboratory. Use a third party laboratory accredited by the AASHTO accreditation program. Provide proof of the laboratory's accreditation for the test procedures to be used. Do not use the same laboratory that produced the disputed Government test results or that produced the test results used as a basis for the dispute.

The CO will review the proposed resolution protocol and may modify it before final approval and execution.

The Government will use the approved resolution protocol test results to determine the validity of the disputed testing. If the Government test results are validated, the Contractor will be responsible for all costs associated with developing and performing the resolution protocol. If the Government test results are not validated, the Government will be responsible for all costs associated with developing and performing the resolution protocol.

If the validity of the Government test results cannot be determined, the Contractor and Government will equally share all costs associated with developing and carrying out the resolution protocol.

(b) Alternatives to removing and replacing non-conforming work. As an alternative to removal and replacement, the Contractor may submit a written request to:

(1) Have the work accepted at a reduced price; or

(2) Be given permission to perform corrective measures to bring the work into conformity.

The request must contain supporting rationale and documentation. Include references or data justifying the proposal based on an evaluation of test results, effect on service life, value of material or work, quality, aesthetics, and other tangible engineering basis. The CO will determine disposition of the nonconforming work.

106.07_nat_us_05_11_2004

106.07 Delete

Delete subsection 106.07.

107 - Legal Relations and Responsibility to the Public

107.05_nat_us_05_11_2004

107.05 Responsibility for Damage Claims.

Delete the entire subsection.

107.06_nat_us_06_16_2006

107.06 Contractor's Responsibility for Work.

Delete the following from the first paragraph.

"except as provided in Subsection 106.07".

107.08_nat_us_03_29_2005

107.08 Sanitation, Health, and Safety

Delete the entire subsection.

107 - Legal Relations and Responsibility to the Public

107.08_nat_us_05_11_2004

107.08 Sanitation, Health, and Safety.

Add the following:

Perform all operations in a prudent, conscientious, safe and professional manner. Ensure that all personnel involved in handling and packaging the hazardous waste are trained for the level of expertise required for the proper performance of the task and, in particular, in the areas of chemical incompatibility, general first aid procedures, and spills. Provide handling and personal protective equipment appropriate to ensure safe handling of the hazardous waste according to 29 CFR 1910.120). Notify the Forest Service of all hazardous material that may be brought onto the National Forest.

107 - Legal Relations and Responsibility to the Public

107.09_nat_us_06_16_2006

107.09 Legal Relationship of the Parties.

Delete the entire subsection.

107.10_nat_us_06_16_2006

107.10 Environmental Protection.

Add the following:

Design and locate equipment repair shops, stationary refueling sites, or other facilities to minimize the potential and impacts of hazardous material spills on Government land.

Before beginning any work, submit a Hazardous Spill Plan. List actions to be taken in the event of a spill. Incorporate preventive measures to be taken, such as the location of mobile refueling

facilities, storage and handling of hazardous materials, and similar information. Immediately notify the CO of all hazardous material spills. Provide a written narrative report form no later than 24 hours after the initial report and include the following:

- Description of the item spilled (including identity, quantity, manifest number, and other identifying information).
- Whether amount spilled is EPA or state reportable, and if so whether it was reported, and to whom.
- Exact time and location of spill including a description of the area involved.
- Containment procedures.
- Summary of any communications the Contractor had with news media, Federal, state and local regulatory agencies and officials, or Forest Service officials.
- Description of clean-up procedures employed or to be employed at the site including final disposition and disposal location of spill residue.

When available provide copies of all spill related clean up and closure documentation and correspondence from regulatory agencies.

The Contractor is solely responsible for all spills or leaks that occur during the performance of this contract. Clean up spills or leaks to the satisfaction of the CO and in a manner that complies with Federal, state, and local laws and regulations.

108 - Prosecution and Progress

108.00_nat_us_02_16_2005

108 Delete.

Delete Section 108 in its entirety.

109 - Measurement and Payment

109.00_nat_us_02_17_2005

109 Deletions

Delete the following entire subsections:

109.06 Pricing of Adjustments.

109.07 Eliminated Work.

109.08 Progress Payments.

109.09 Final Payment.

109.02_nat_us_06_16_2006

109.02 Measurement Terms and Definitions.

(b) Contract quantity.

Add the following:

Contract quantities will be adjusted only when there are errors in the original design of 15% or more.

Change the following:

"(b) Cubic yard" to "(c) Cubic yard".

Add the following definition:

(p) Thousand Board Feet (Mbf). 1,000 board feet based on nominal widths, thickness, and extreme usable length of each piece of lumber or timber actually incorporated in the job. For glued laminated timber, 1,000 board feet based on actual width, thickness, and length of each piece actually incorporated in the job.

109.03_nat_us_02_17_2005

249 - Composite Road Construction

249.01 Description

This work consists of clearing and grubbing, excavation and embankment, and removal of all construction slash including all trees designated for removal. Excavation and embankment includes on site borrow excavation; drainage excavation; placing all excavated material; and shaping the roadway; including approaches, turnarounds, ditches and drainage dips. Construct the roadway in conformance with the dimensions "shown on the plans" or as staked on the ground.

249.02 Clearing and Disposal

Protect construction stakes and construction control markers. Remove or treat all trees, snags, downed timber, brush, and stumps within the clearing limits according to the following specifications.

(a) Merchantable Timber. Treat according to the Utilization Standards of the Timber Sale Contract.

(b) Unmerchantable Timber. Treat according to Subsection 249.02 Method A.

(c) Large Construction Slash. Treat construction slash larger than 3 inches in diameter and longer than 3 feet by one or more of the following methods.

(1) Method A. Construction slash shall be scattered outside the clearing limits without damaging trees outside the clearing area. Logs shall be placed away from trees, positioned so that they will not roll, not placed on top of one another or left leaning on other trees. Scattered stumps shall be placed in an upright position

(2) Method B. Stumps, roots, rocks, topsoil and other grubbing debris shall be concentrated in stump dump areas. Stump dump areas shall be located by the Engineer, be a maximum of 300 feet apart along the road centerline, and generally be located in natural depressions or tucked away behind denser vegetation or ground rises. Stump dumps will vary in size depending on each site, but shall not be closer than 10 feet outside of the clearing limits. Stump dump material shall be matted down as much as possible and shall not obstruct natural drainages.

(d) Small Construction Slash. Construction slash less than 3 inches in diameter and less than 3 feet in length may be incorporated into embankments so long as the material is distributed so that it does not result in concentrations or matting.

Immediately remove slash deposited in stream courses.

249.03 Pioneering

Do not undercut the final back slope during pioneer operations. Deposit material inside the roadway limits. Do not restrict drainages.

249.04 Grubbing.

Grub within the specified limits. Stumps outside the grubbing limits remain if cut no higher than 1 foot or one-third of the stump diameter, whichever is greater, above the original ground, measured on the uphill side, unless otherwise designated. Grub all stumps from the Roadway, or stumps that have less than 1 foot of cover, in the Fill slopes, providing they do not interfere with the placement or compaction of embankments.

249.05 Excavation and Embankment.

Construct the roadway to conform to the typical sections shown on the plans. Protect backslopes from being undercut. Embankment shall be placed in layers no more than 12 inches thick.

Locate and use borrow material, and remove and treat unsuitable excess material, as designated.

Place rocks that are too large to be incorporated in the embankment outside the traveled way on the downhill side such that they will not roll, obstruct drainage, or hinder roadbed use and maintenance.

Shape and finish the roadbed to the condition ordinarily accomplished by a crawler tractor with dozer blade to provide drainage of surface water. Do not permit individual rocks to protrude more than 4 inches above the subgrade of the roadbed. A motor grader finish is not required.

Observe a width tolerance of (+) 18 inches max. for the roadbed.

Where shown on the drawings or designated on the ground, offtake ditches shall be constructed to drain water away from the roadbed.

249.06 Erosion Control.

Perform erosin control measures, where shown on the drawings, or staked on the ground.

249.07 Method.

Measure the section 249 items listed in the schedule of items according to subsection 109.02

Payment

249.08 Basis.

The accepted quantities will be paid at the contract price per unit of measurement for Section 249 pay items listed in the Bid Schedule. Payment will be full compensation for the work prescribed in this section. See Subsection 109.05

301 - Untreated Aggregate Courses

301.00_nat_us_03_03_2005

301 Title Change.

Change the title to: **Section 301 Aggregate Courses**

301.01_nat_us_03_03_2005

301.01 Work.

Add the following:

Work includes producing aggregate by pit-run, grid rolling, screening, or crushing methods, or placing Government-furnished aggregate. Work may include additive mineral filler, or binder.

301.02_nat_us_05_16_2005

301.02 Material.

Add the following:

Bentonite	725.30
Calcium Chloride Flake	725.02
Lignin Sulfonate	725.20

Magnesium Chloride Brine or Calcium Chloride Liquid 725.02

301.03_nat_us_02_28_2013

301.03 General.

Add the following:

Written approval of the roadbed is required before placing aggregate.

For pit run or grid-rolled material, furnish material smaller than the maximum size. No gradation other than maximum size will be required for pit-run or grid-rolled material. For grid rolling, use all suitable material that can be reduced to maximum size. After processing on the road, remove all oversize material from the road and dispose of it as directed by the CO.

Provide additives or binder, if required, at the proportions specified.

Develop and use Government furnished sources according to Section 105.

If the aggregate is produced and stockpiled before placement, handle and stockpiled according to Section 320. Establish stockpile sites at locations approved. Clear and grub stockpile sites according to Section 201.

301.04_nat_us_03_03_2005

301.04 Mixing and Spreading.

Delete the first sentence of the first paragraph and add the following:

Ensure that aggregate and any required additives, water, mineral filler, and binder are mixed by the specified method except, if crushed aggregate products are being produced and mineral filler, binder, or additives are required, uniformly blend following crushing. Control additive proportions to 0.5 percent dry weight.

(a) Stationary Plant Method. Mix the aggregate with other required materials in an approved mixer. Add water during the mixing operation in the amount necessary to provide the moisture content for compacting to the specified density. After mixing, transport the aggregate to the jobsite while it contains the proper moisture content, and place it on the roadbed or base course using an aggregate spreader.

(b) Travel Plant Method. After placing the aggregate for each layer with an aggregate spreader or windrow-sizing device, uniformly mix it with other required materials using a traveling mixing plant. During mixing, add water to provide the necessary moisture content for compacting.

(c) Road Mix Method. After placing the aggregate for each layer, mix it with other required materials at the required moisture content until the mixture is uniform throughout. Mix aggregate, water, and all other materials until a uniform distribution is obtained.

Spread the aggregate in a uniform layer, with no segregation of size, and to a loose depth that will provide the required compacted thickness.

When placing aggregate over geotextile, place aggregate in a single lift to the full depth specified.

Route and distribute hauling and leveling equipment over the width and length of each layer.

301.05_nat_us_05_17_2005

301.05 Compacting

Delete and replace with the following:

Compact each layer full width. Roll from the sides to the center, parallel to the centerline of the road. Along curbs, headers, walls, and all places not accessible to the roller, compact the material with approved tampers or compactors.

Compact the aggregate using one of the following methods as specified:

Compaction A. Operate spreading and hauling equipment over the full width of the travelway.

Compaction B. Operate rollers and compact as specified in Subsection 204.11(a) (1).

Compaction C. Moisten or dry the aggregate to a uniform moisture content between 5 and 7 percent based on total dry weight of the mixture. Operate rollers and compact as specified in Subsection 204.11(a) (1).

Compaction D. Compact to a density of at least 95 percent of the maximum density, as determined by AASHTO T 99, method C or D.

Compaction E. Removed.

Compaction F. Compact to a density of at least 95 per-cent of the maximum density, as determined by AASHTO T 180, method C or D.

Compaction G. Removed.

For all compaction methods, blade the surface of each layer during the compaction operations to remove irregularities and produce a smooth, even surface. When a density requirement is specified, determine the in place density and moisture content according to AASHTO T 310 or other approved test procedures.

301.06_nat_us_03_03_2005

301.06 Surface Tolerance.

Add the following:

Thickness and Width requirements:

The maximum variation from the compacted specified thickness is ½ inch. The compacted thickness is not consistently above or below the specified thickness and the average thickness of 4 random measurements for any ½ mile of road segment is within + ¼ inch of the specified thickness.

The maximum variation from the specified width will not exceed +12 inches at any point. The compacted width is not consistently above the specified width and the average of any four random measurements along any ½ mile of road segment is within +4 inches of the specified width.

301.08_nat_us_03_03_2005

Table 301-1: Add the following:

Table 301-1—Acceptance Sampling and Testing Requirements.

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Subbase & Base Courses L, M, N, O, P, Q, R	Measured and tested conformance (Subsection 106.04)	Plastic Limit	-	AASHTO T 90	1 per each 1,000 T	From the windrow or roadbed after processing	Yes	4 Hours

Table 301-1—Acceptance Sampling and Testing Requirements.

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Aggregate Width	Measured and tested conformance (Subsection 106.04)	Width	-	-	4 per each 0.5 mi	Roadbed after processing	-	4 Hours
Aggregate Thickness	Measured and tested conformance (Subsection 106.04)	Thickness	-	-	4 per each 0.5 mi	Roadbed after processing	-	4 Hours
Additive	Measured and tested conformance (Subsection 106.04)	Amount of Additive	-		1 per each 1,000 T	From the windrow or roadbed after processing	No	4 Hours

301.08_nat_us_10_14_2011

Table 301-1 Field Density Requirements.

Table 301-1: Delete laboratory and field density requirements for base, subbase, and surfacing and replace with the following:

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Base and Subbase	Measured and tested conformance (Subsection 106.04)	Moisture Density	---					
		Method C	---	AASHTO T 99	1 per type and source of material	Source of material	Yes	Before using in work
			---		“	“	“	“
		Method D	---	AASHTO T 180	“	“	“	“
			---		“	“	“	“
		Compaction	---					
		Method C, D	---	AASHTO T 310 or other approved procedures	1 per 500 t	In-place	---	Before placing the next layer
Surfacing	Measured and tested conformance (Subsection 106.04)	Moisture Density						
			---		“	“	“	Before using in work
		Method D	---	AASHTO T 180	“	“	“	“
			---		“	“	“	“
		Compaction						
		Method C, D	---	AASHTO T 310 or other approved procedures	1 per 500 t	In-place	---	Before placing the next layer

301.08_nat_us_03_30_2005

301.08(b) Plasticity Index.

Add the following to the first sentence:

"and under 703.05(c) (1)".

301.09_nat_us_07_07_2005

301.09 Measurement.

Replace the second paragraph with the following:

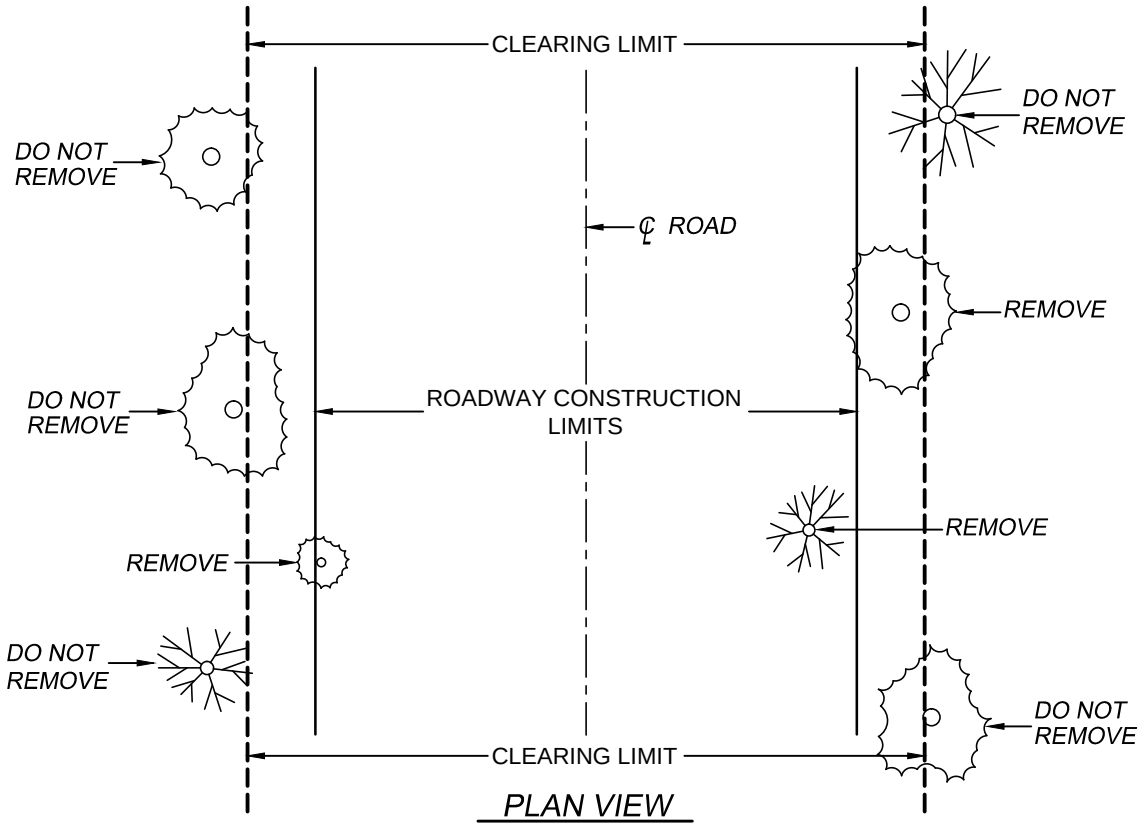
Measure aggregate by cubic yard compacted in place when payment is by contract quantities.

301.10_nat_us_03_03_2005

301.10 Payment

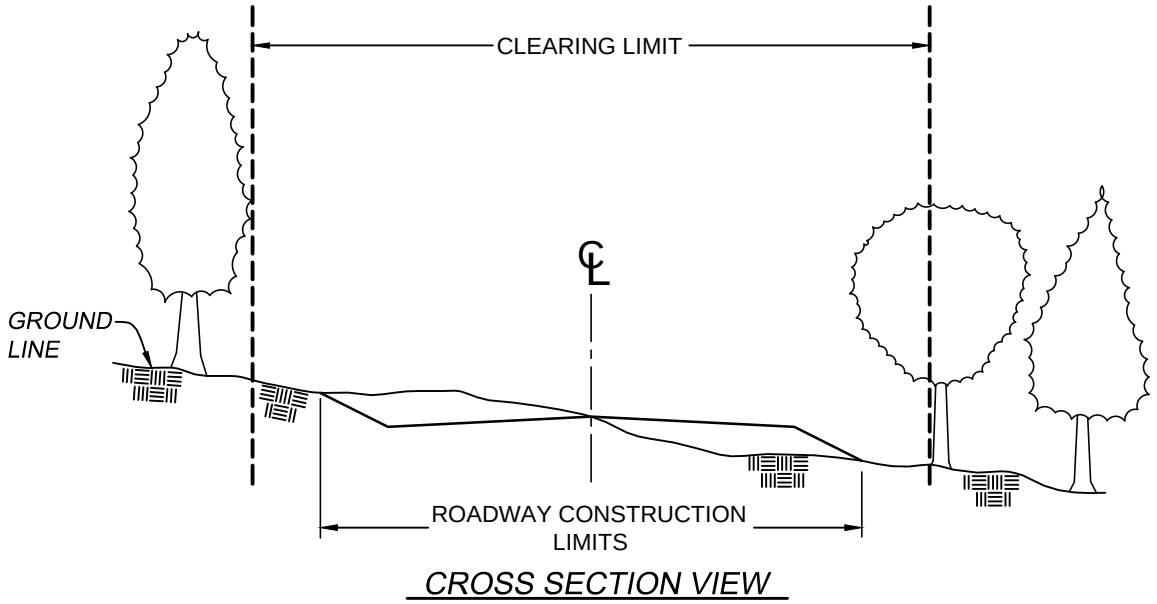
Delete the following:

adjusted according to Subsection 106.05

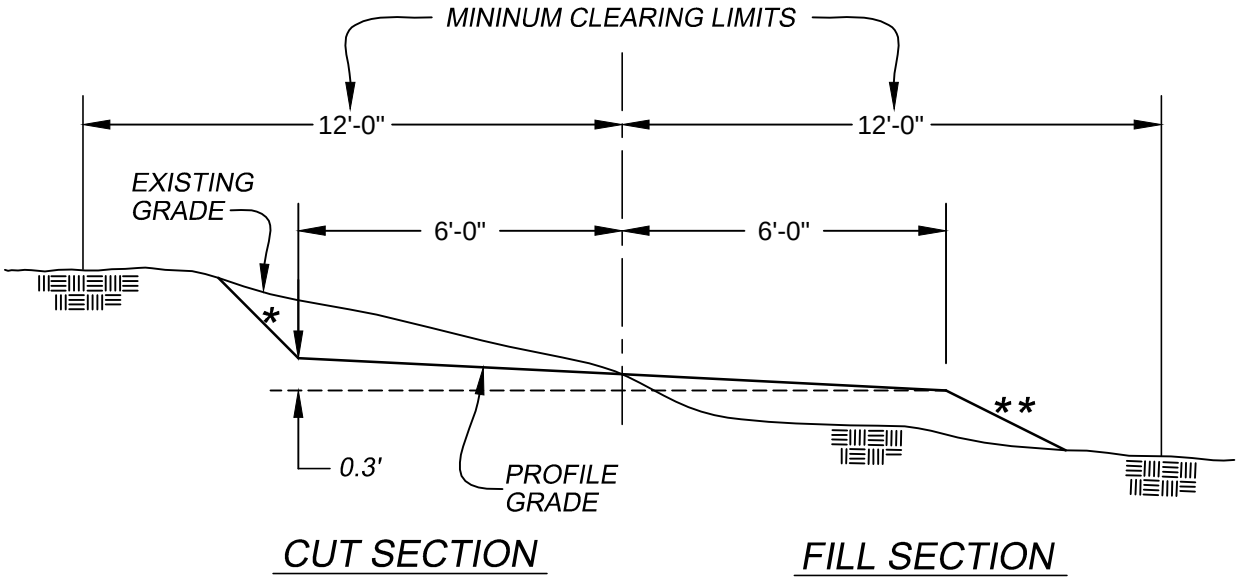


NOTE: TREES ON THE CLEARING LIMIT LINE ARE TO REMAIN UNLESS OTHERWISE DESIGNATED BY THE ENGINEER.

NOTE: YELLOW PAINT INDICATES TREES TO BE REMOVED.



CONSTRUCTION STAKING
NOT TO SCALE

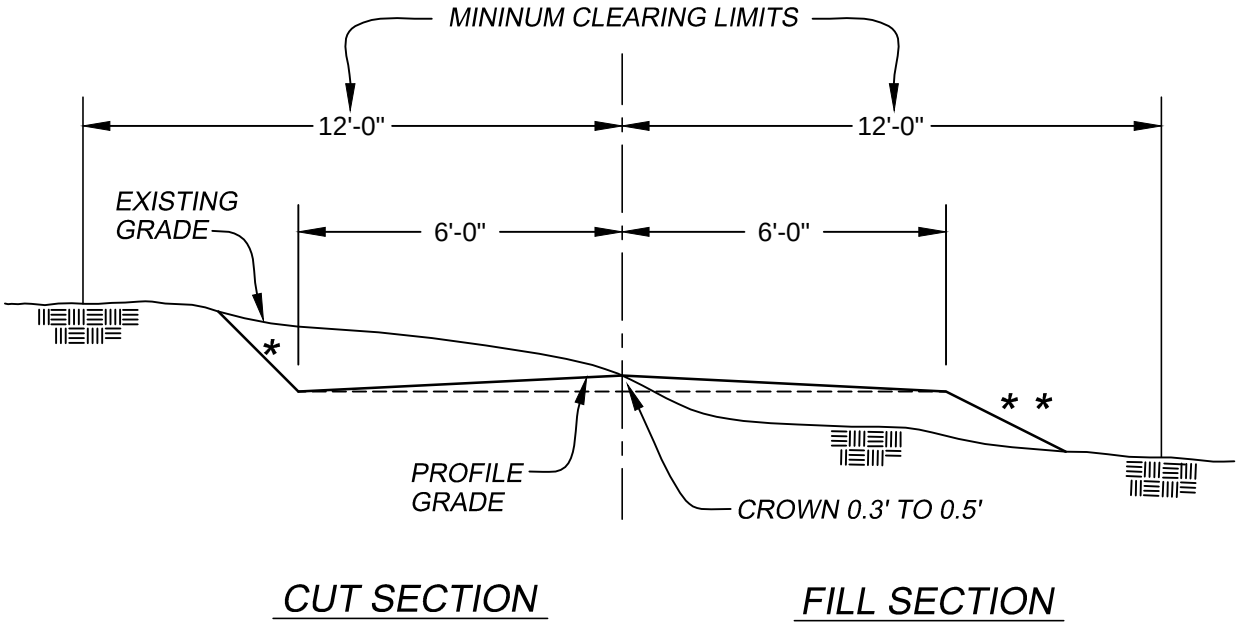


TYPICAL OUTSLOPE DETAIL

NOT TO SCALE

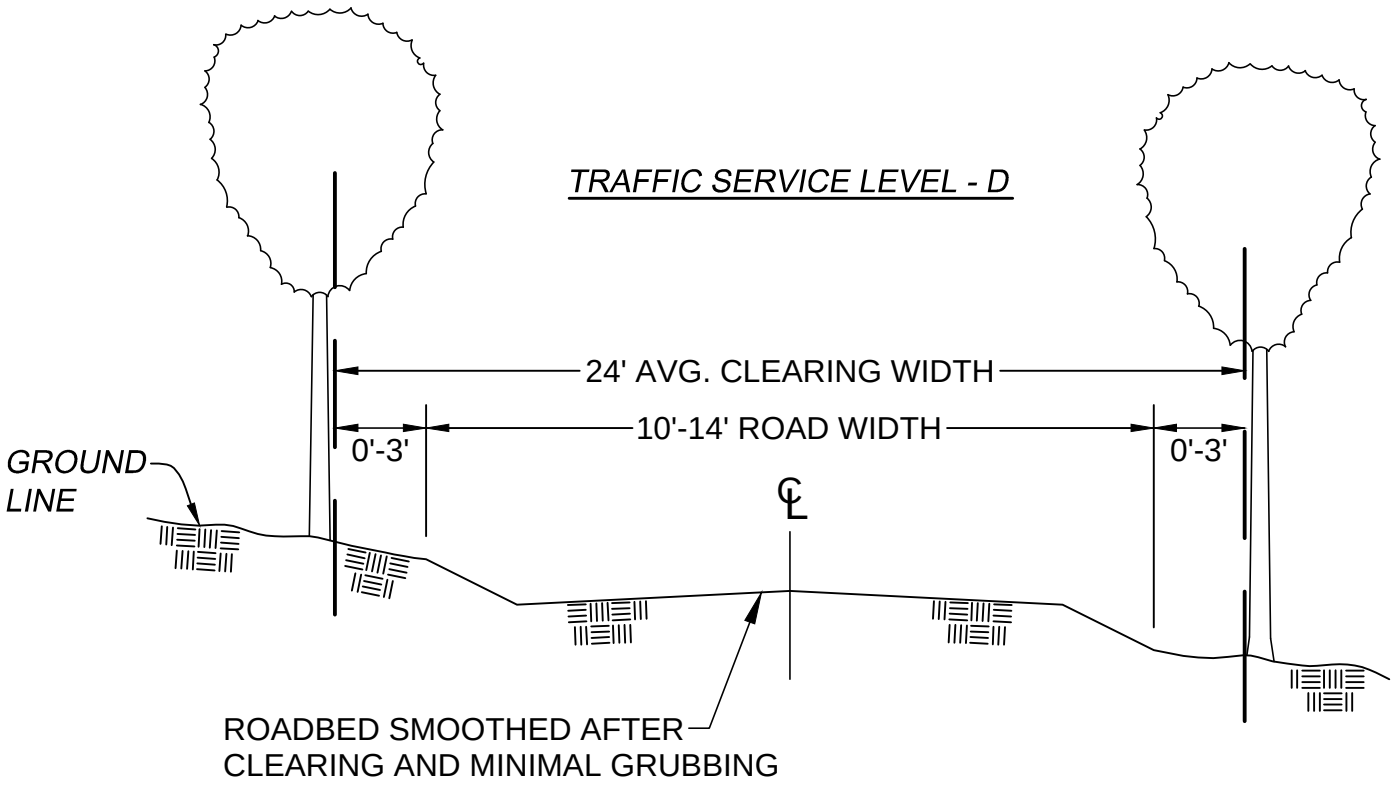
*BACKSLOPE AND DITCH SLOPES MAY VARY FROM 1H:1V TO 2H:1V WHEN CUTS ARE UNDER 2 FT. CUTS OVER 2 FT. SHALL HAVE SLOPES OF 2H:1V

**FILL SLOPES MAY VARY FROM 1-1/2H:1V TO 3H:1V



TYPICAL CROSS SECTION CROWN NO DITCHES

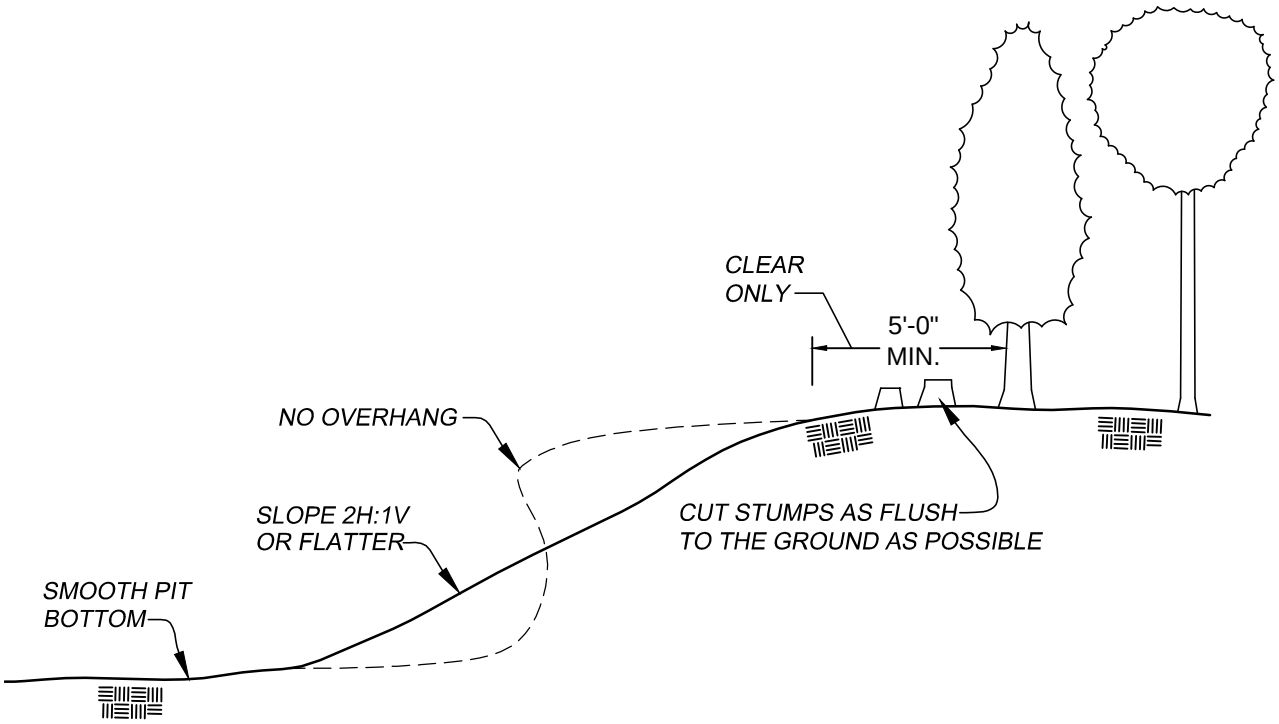
NOT TO SCALE



CROSS SECTION VIEW

WINTER ONLY ROAD STANDARD

NOT TO SCALE

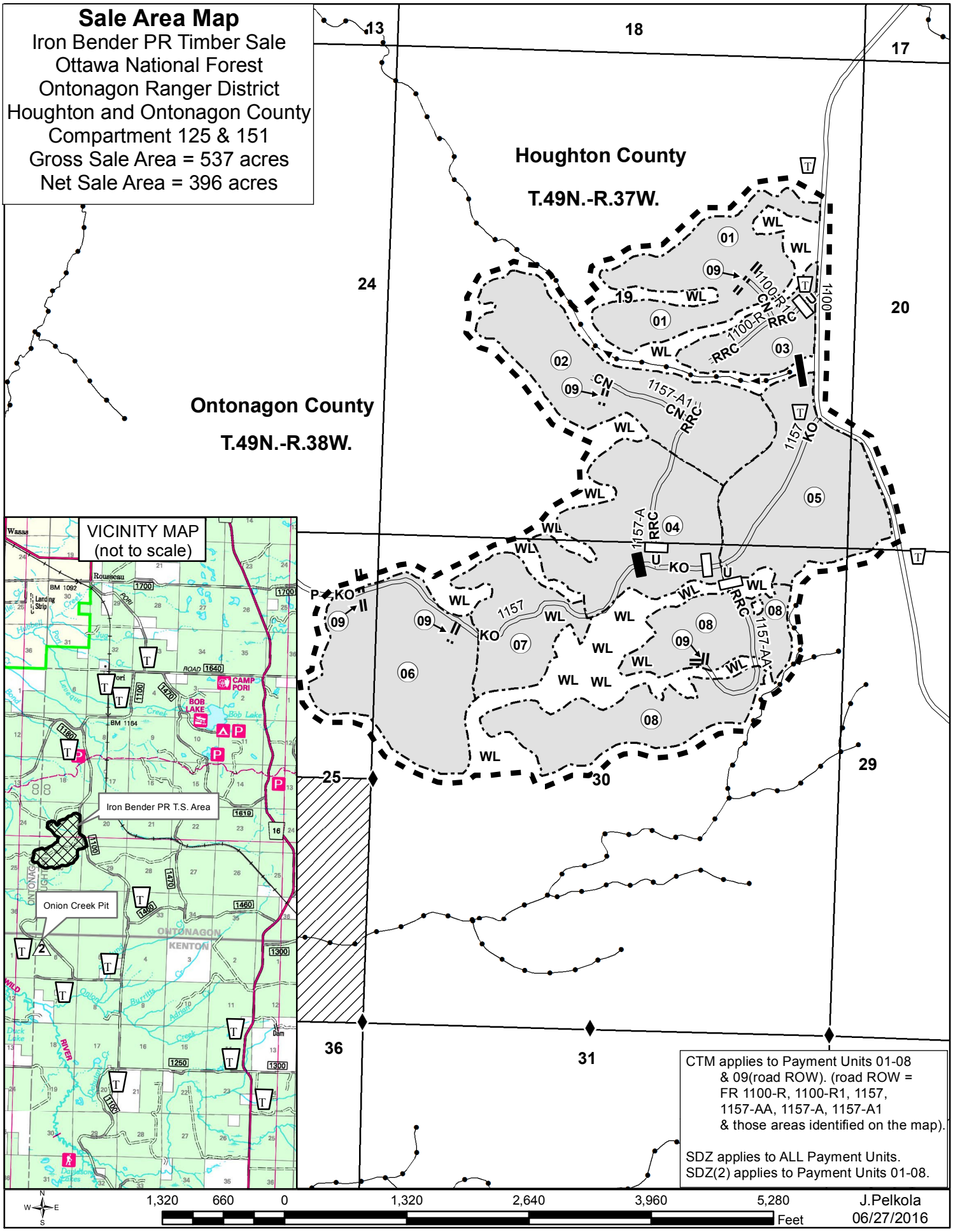


NOTE: TOPS, STUMPS AND TRUNKS SHALL BE DISPOSED OF AS DIRECTED BY THE FOREST SERVICE. STUMPS SHALL BE SEVERED FROM ALL TREES. OVERSIZED ROCK SHALL BE DISPOSED OF IN EXISTING PILES OR AS DIRECTED BY THE FOREST SERVICE. SMOOTH PIT BOTTOM TO REDUCE THE COLLECTION OF WATER. HAUL ROADS SHALL BE MADE SMOOTH AND REPAIRED OF DAMAGE CAUSED BY THE CONTRACTORS HAULING OPERATION OR EQUIPMENT.

BORROW PIT CLEAN UP

Sale Area Map

Iron Bender PR Timber Sale
Ottawa National Forest
Ontonagon Ranger District
Houghton and Ontonagon County
Compartment 125 & 151
Gross Sale Area = 537 acres
Net Sale Area = 396 acres



LEGEND

	Sale Area Boundary, BT1.1
	Payment Unit Boundary, BT1.1
1	Payment Unit Number, BT1.1
CTM	Cut Tree Marked Prior to Advertisement, BT2.35, CT2.355#, CT6.412
1157	Existing Transportation System Road, BT5.12, BT6.22
1157 P P	Existing Transportation System Road, Use Prohibited, CT5.12#
1100-R1 CN CN	Specified Road Construction (New), AT7, BT5.2, BT5.23, BT6.22, BT6.222, BT6.361
1100-R RRC RRC	Specified Road Reconstruction, AT7, BT5.2, BT5.23, BT6.22, BT6.222, BT6.361
1100-R U U	Existing Transportation System Road, Unsuitable for hauling prior to completion of agreed reconstruction, BT5.12, BT5.23, CT5.12#
1157 KO	Keep Road Open, BT6.22
1157	Purchaser Remove Berm on System Road, CT5.31#, T-8620
1157-A	Purchaser Install Berm on System Road, CT5.31#, T-8620
WL	Wetlands Protection, BT6.62, CT6.62#
	Streamcourse Protection, BT6.5 (block represents upper stream limit; arrow indicates flow direction)
SDZ	Slash Disposal, CT6.7#
SDZ(2)	Slash Disposal Zone, CT6.7#
	Other Ownership
	Protection of Land Survey Monuments (Monumented Corner), BT6.23
2	Material Sources, CT5.221# (Onion Creek Pit -T48N-R37W, Section 6), CT5.31# (T8130)
T	Traffic Control Device, BT6.33 (Safety)