

U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE TIMBER SALE CONTRACT (Applicable to Sales to be Measured before Felling)		Name of Purchaser	
National Forest Hiawatha	Ranger District Sault Ste Marie	Region Eastern	Contract Number
Sale Name Ruby TPPS		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

SAMPLE

Two Witnesses: ^{1/}

By: _____
Contracting Officer

(Title)

(Name)

By: _____
(Purchaser) ^{2/}

(Address)

(Title)

(Name)

(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: _____

_____ Signature

_____ Date

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: Ruby TPPS

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 451 acres more or less is located in:

T46N-R6W; Sec. 35 and T45N-R6W; Sec. 2

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
Red Pine	Sawtimber	5,327.00	CCF	9.0	1	8	7.6	50
Mixed Hardwood	Pulpwood	57.00	CCF	5.0	1	8	4.0	70
Red Pine	Pulpwood	538.00	CCF	5.0	1	8	4.0	70
Total Quantity		5,922.00	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)	_____	282.8
Incompletely Measured Payment Units (BT2.36)	_____	_____

SAMPLE

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				Required Deposits Slash Disposal \$
			Base \$	Advertised \$	Bid Premium \$	Bid (Flat) \$	
Red Pine	Sawtimber	CCF	17.47	62.33			.00
Mixed Hardwood	Pulpwood	CCF	5.57	19.73			.00
Red Pine	Pulpwood	CCF	13.65	46.66			.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.

SAMPLE

AT4c - Schedule of Payment Units

Payment Unit No.	App rox. 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 \$
01	37.8			Red Pine Sawtimber 585.00 CCF Mixed Hardwood Pulpwood 6.00 CCF Red Pine Pulpwood 53.00 CCF		.00
		Total PU Quantity And Value			644.00 CCF	
02	39.7			Red Pine Sawtimber 635.00 CCF Mixed Hardwood Pulpwood 8.00 CCF Red Pine Pulpwood 64.00 CCF		.00
		Total PU Quantity And Value			707.00 CCF	
03	52.2			Red Pine Sawtimber 948.00 CCF Mixed Hardwood Pulpwood 11.00 CCF Red Pine Pulpwood 82.00 CCF		.00
		Total PU Quantity And Value			1,041.00 CCF	
04	63.6			Red Pine Sawtimber 932.00 CCF Mixed Hardwood Pulpwood 26.00 CCF Red Pine Pulpwood 89.00 CCF		.00
		Total PU Quantity And Value			1,047.00 CCF	
05	65.1			Red Pine Sawtimber 1,563.00 CCF Mixed Hardwood Pulpwood 5.00 CCF Red Pine Pulpwood 160.00 CCF		.00
		Total PU Quantity And Value			1,728.00 CCF	
06	23.4			Red Pine Sawtimber 626.00 CCF Mixed Hardwood Pulpwood 1.00 CCF Red Pine Pulpwood 87.00 CCF		.00
		Total PU Quantity And Value			714.00 CCF	
50	1			Red Pine Sawtimber 38.00 CCF Mixed Hardwood Pulpwood 0.00 CCF Red Pine Pulpwood 3.00 CCF		.00
		Total PU Quantity And Value			41.00 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	12
All	Pulpwood	10

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		
					Survey	Design	Construction Staking 1/
Road No.	Name						
3027	AARON (R) (segment 0 to .03)	Single Lane - 10 mph	.03 / .05	6 01/28/2016	FS	FS	FS AC
3028	FRED (R) (segment 0 to .04)	Single Lane - 10 mph	.04 / .06	7 01/28/2016	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 December 01, inclusive

AT10 - Purchaser Responsibility to Furnish Crews and Equipment for:

Initial Fire Suppression, applicable to BT7.3

Within 5 road miles

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

Within 10 road miles



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

Maximum Amount: \$ \$1,500

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: June 01 to March 31, inclusive

Second Period: _____ to _____, 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

	<u>Periodic Payment Determination Date</u>	<u>Amount</u>
Initial Payment:	_____	_____
Additional Payment:	_____	_____

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

Index Name: Softwood Lumber Index Number: 0811

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.)

CT2.301#	PROTECTED AREAS (06/2009)
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)
CT5.213#	DEPOSIT FOR RECONSTRUCTION ENGINEERING SERVICES (04/2004)
CT5.31#	ROAD MAINTENANCE REQUIREMENTS (07/2001)
CT5.33#	SNOW REMOVAL (06/2009)
CT6.313#	CUTTING SCHEDULE (06/2009)
CT6.314#	OPERATING REQUIREMENTS (06/2009)
CT6.331	SAFETY (09/2004)
CT6.412	STUMP MARKS (02/2009)
CT6.42#	SKIDDING AND YARDING REQUIREMENTS (06/2009)
CT6.7#	SLASH DISPOSAL MEASURES (06/2009)
CT7.2	FIRE PRECAUTIONS (06/2009)
CT8.212	MARKET-RELATED CONTRACT TERM ADDITION (11/2008)

Sale Name: Ruby TPPS

CT2.301# - PROTECTED AREAS (06/2009)

Notwithstanding the designations for cutting under standard provisions BT2.31, BT2.33, BT2.34 and BT2.35, trees within the area to be protected in Payment Unit(s) 1, 2 and 3 shall be left uncut. Boundary trees along the perimeter of Protected Areas have been identified by three ORANGE vertical spots facing out of the Protected Area, An ORANGE vertical line on each side of the bole facing the direction of the boundary and one stump mark with ORANGE paint. Equipment must stay on the existing road bed within the Protected Area. Hauling is allowed. Traffic must stay on road bed. No dirt work without USFS approval. BOUNDARY TREES ARE NOT TO BE CUT. Sale Area Map indicates, with symbol "PA," units within which Protected Areas are identified on the ground and are to be left uncut.

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

Boundary trees for all harvest units have been designated with ORANGE 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

Contract Name: Ruby TPPS

CT2.355#, Individual Trees, Cut Tree Marking (CTM)

Paint Color Table

Payment Unit(s)	Paint Color
01, 02, 03, 04, 05, and 06.	Blue
50	Yellow

- Exterior and Common boundaries for Payment Units are designated with three ORANGE vertical spots facing into unit, an ORANGE vertical line on each side of the bole facing the direction of the boundary and a stump mark with ORANGE paint.
- Exterior boundaries for Protected Areas are designated with three ORANGE vertical spots facing out of the Protected Area, an ORANGE vertical line on each side of the bole facing the direction of the boundary and a stump mark with ORANGE paint.
- Where Payment Unit boundaries are coincidental with the road or utility line only the corners where the boundary meets the roads or utility lines are painted.
- Payment Unit-50 (Road Right of Way) boundary is the extent of the YELLOW paint.

Sale Name: Ruby TPPS

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 downpayment. 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 increased 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.

Sale Name: Ruby TPPS

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.

Sale Name: Ruby TPPS

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.

SAMPLE

Sale Name: Ruby TPPS

CT5.12#, Use of Roads by Purchaser

Restricted Road Use Table

Road #	Road Name	Termini		Map Legend	Description of Restrictions
		From	To		
FR 3143	FR 3143	South boundary PU-2	End	P	All Use Prohibited
FR 3027	Aaron	West boundary of PA	East boundary of PA	R	Hauling allowed. Traffic must stay on road bed. No dirt work without USFS approval.
FR 3566	FR 3566	M-123	FR 3666	P	Between December 1 and April 1 inclusive

Forest Road 3566 is a designated snowmobile route. Hauling is not permitted between December 1 and April 1 inclusive, If road is closed during this time period, snowplowing will require banks to be sloped at the ends of plowed sections and at crossroads, warning signs will be required to warn snowmobile operators where snowplowing begins and ends. Type of signs and locations will be agreed upon with Forest Service Representative as part of the Traffic Control Plan required in BT6.33.

Sale Name: Ruby TPPS

CT5.213# - DEPOSIT FOR RECONSTRUCTION ENGINEERING SERVICES (04/2004)

Purchaser shall make a cash deposit for engineering services (preconstruction and construction) provided by Forest Service for reconstruction of National Forest system roads necessary to accommodate Purchaser's use under this contract, pursuant to 16 USC 537.

The total amount to be deposited by Purchaser for reconstruction related engineering services to be completed by Forest Service personnel or by public works contract is \$1,597.00. Purchaser shall make this deposit at the end of the first full Normal Operating Season or 12 months from contract award, whichever occurs first. In the event a different deposit schedule is agreed to, such deposit shall be due within 15 days after the date of issue indicated on the initial bill for collection, pursuant to BT4.4.

The amount of the required deposit will be shown as an associated charge on Purchaser's Timber Sale Account. Forest Service shall retain any unexpended deposit for reconstruction related engineering services.

The deposit for reconstruction related engineering services shall be commensurate with project need and Purchaser's road use. Forest Service shall complete reconstruction related engineering services on the following schedule unless a different completion schedule is agreed in writing:

Road or Facility No.	Termini		Engineering Services Completion Date
	From	To	

N/A

Reconstruction related engineering services may consist of some or all of the engineering work and expense of: preparing, setting out, controlling, inspecting, and measuring the reconstruction of a National Forest system road.

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.

CT5.31#, Road Maintenance Requirements

SECTION 3. ROAD MAINTENANCE REQUIREMENTS SCHEDULE

Contract Road Maintenance Requirements Summary

Road	Termini		Miles	Applicable <u>Pre-Haul</u> Road Maintenance Specification			
	From	To		T-8360			
3027	3027A	M-123	0.4	P			
3027	East boundary of PA	3143	0.3	P			
3027A	North boundary PU-1	3027	0.2	P			
3143	South boundary of PU-2	M-28	0.3	P			
3666B	North boundary of PU-4	3666	0.3	P			
3666	3666B	3566	0.5	P			
3566	3666	M-123	0.2	P			
3028	3027	M-123	0.4	P			

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

Road	Termini		Miles	Applicable <u>During-Haul</u> Road Maintenance Specification			
	From	To		T-8360			
3027	3027A	M-123	0.4	P			
3027	East boundary of PA	3143	0.3	P			
3027A	North boundary PU-1	3027	0.2	P			
3143	South boundary of PU-2	M-28	0.3	P			
3666B	North boundary of PU-4	3666	0.3	P			
3666	3666B	3566	0.5	P			
3566	3666	M-123	0.2	P			
3028	3027	M-123	0.4	P			

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

CT5.31#, Road Maintenance Requirements (Continued)

SECTION 3. ROAD MAINTENANCE REQUIREMENTS SCHEDULE

Contract Road Maintenance Requirements Summary

Road	Termini		Miles	Applicable <u>Post-Haul</u> Road Maintenance Specification			
	From	To		T-8360			
3027	3027A	M-123	0.4	P			
3027	East boundary of PA	3143	0.3	P			
3027A	North boundary PU-1	3027	0.2	P			
3143	South boundary of PU-2	M-28	0.3	P			
3666B	North boundary of PU-4	3666	0.3	P			
3666	3666B	3566	0.5	P			
3566	3666	M-123	0.2	P			
3028	3027	M-123	0.4	P			

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

CT5.31#, Road Maintenance Requirements

SECTION 1. GENERAL

Purchaser's main Road Maintenance responsibility begins: (1) after Purchaser performs Pre-haul 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.

CT5.31#, Road Maintenance Requirements

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 Activity. 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.

SECTION 2. ROAD MAINTENANCE DEFINITIONS (Continued)

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.

CT5.31#, Road Maintenance Requirements

SECTION 4. ROAD MAINTENANCE SPECIFICATIONS

INCLUDED SPECIFICATIONS

<u>Specification No.</u>	<u>Specification Title</u>
T-8360	Composite High Clearance Road Maintenance

SAMPLE

CT5.31#, Road Maintenance Requirements

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.

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.

3.3 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.

T-8360 Composite High Clearance Road Maintenance (Continued)

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 previously, using prior existing methodology.

SAMPLE

Sale Name: Ruby TPPS

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 one-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 segments 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 cled vehicles will not be used for snow removal without prior written approval of Forest Service Representative.

CT6.313# - CUTTING SCHEDULE (06/2009)

Unless changed by written agreement, only Three in addition to the road right of way (PU-50) Payment Units may be released at one time, and the sequence of cutting Payment Units shall be: at the option of the Purchaser.

Unless there is agreement in writing to postpone specific requirements, all contractual requirements on a Payment Unit shall be accepted by Forest Service prior to the release of an additional Payment Unit.

Sale Name: Ruby TPPS

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

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

Restricted operations/activities:

Within All Payment Units, logging operations may not be permitted between March 15 and July 1 (inclusive) due to bark slippage.

Within All Payment Units, operations may only occur when soils are capable of supporting equipment without incurring detrimental compaction, puddling or rutting.

Within ALL Payment Units, operations may need to be halted during spring thaw and rainy periods to prevent excessive rutting and compaction.

Operations may need to be halted during drought periods, as soils are vulnerable to erosion.

All utility lines may only be crossed at locations approved by the Sale Administrator

Prohibited operations/activities:

Within ALL Payment Units, windrowing of slash is to be avoided and all slash resulting from Purchaser's operations shall lie within four feet of the ground.

Decking is not allowed within 70 feet of M-123.

-
SAMPLE

CT6.331 - SAFETY (09/2004)

When Purchaser's Operations are in progress adjacent to or within recreation zones as shown on Sale Area Map, Purchaser shall, unless relieved in writing by Forest Service, post warning signs in the zone and maintain a watchman to warn and advise the public of any hazards caused by Purchaser's Operations.

CT6.412 - STUMP MARKS (02/2009)

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. When necessary to leave paint on stump, stumps of individually Marked trees may exceed maximum heights set forth in AT6.

Sale Name: Ruby TPPS

CT6.42# - SKIDDING AND YARDING REQUIREMENTS (06/2009)

As used in this provision, skidding equipment includes rubber-tire and track-mounted skidders, forwarders, fell bunchers, processors and any other mechanized equipment that is used off of landings and roads.

Within Payment Unit(s)

Within All Payment Units, unless agreed upon in writing, the overall width of the felling and skidding equipment, including tracks, wheels or blade, shall not exceed 9.5 feet,
N/A.

Within portions of Payment Unit(s)

N/A, as shown on Sale Area Map with symbol "SYR," N/A.

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:

Within a 50-foot strip, measured from the cleared edge (or tree line) of M-123, all slash resulting from Purchaser's operation shall be removed; an additional 50-foot of slash shall lay within two feet of the ground.

Sale Name: Ruby TPPS

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.

SAMPLE

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:

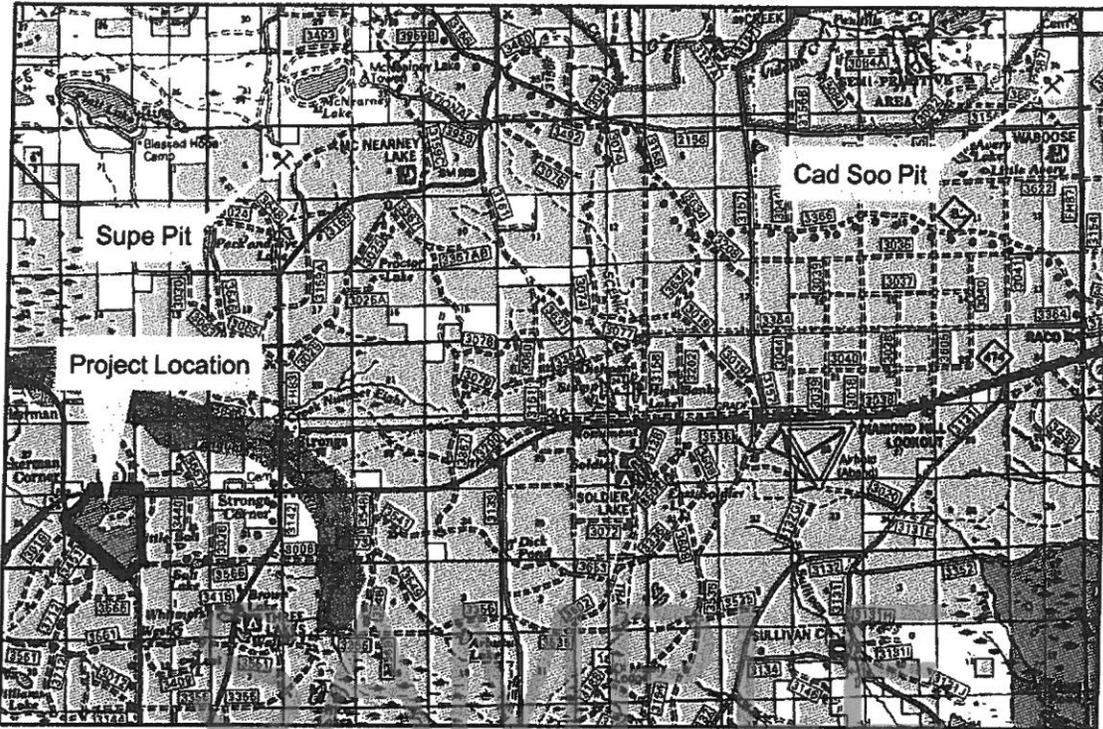
- (i) The sale was awarded after December 31, 2006; and
- (ii) A drastic reduction in wood product prices occurred in at least ten of twelve consecutive quarters during the contract term, but not including the quarter in which the contract was awarded.

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.

HIAWATHA NATIONAL FOREST
SPECIFIED ROAD DRAWINGS
RUBY TIMBER SALE
SAULT STE. MARIE DISTRICT



LOCATION MAP

1 inch equals 2.5 miles



INDEX OF SHEETS

- 1.....Cover Sheet
- 2.....Schedule of Items - Estimate
- 3.....Construction Notes
- 4-5.....Typicals
- 6-7.....Description of Work Sheets
- 8.....Planview

Road No.	RoadName	C/R	Length (mi)
3027	Aaron	R	.03
3028	Fred	R	.04

Plans, Specifications, and Estimates Reviewed and Certified as to Content and Correctness

DESIGNED:
Jennifer A. Piggott 1/26/16
 Civil Engineering Technician date

REVIEWED:
 _____ date
 Title: _____ date

APPROVED:
Greg Gardner 1/28/16
 Forest Engineer date

Robert West 1/28/16
 District Ranger date

RUBY SALE ROADS	SHEET TITLE COVER SHEET	SCALE AS SHOWN	FILE NO. HI-536	SHEET 1 OF 8
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SCHEDULE OF ITEMS - ESTIMATE - RUBY SALE SPECIFIED ROADS

Item No. Description	Estimated Quantities			Unit		Total
	Unit	3027	3028	Price	Total	
10101 Mobilization	LS	0.5	0.5	1.00	\$1,000.00	\$1,000.00
10102 Temporary Traffic Control	LS	0	1	1.00	\$150.00	\$150.00
20101 Clearing and grubbing	LS	0.72	0.28	1.00	\$200.00	\$200.00
20301 Excavation	STA	1.5	2.0	3.50	\$57.00	\$199.50
30401A Aggregate Base, MDOT 23A Processing	CY	0	60	60	\$7.50	\$450.00
30401B Aggregate Base, MDOT 23A Haul & Place, Compaction A	CY	0	60	60	\$12.00	\$720.00
30402A Aggregate Base, Breaker Run	CY	70	0	70	\$7.00	\$490.00
30402B Aggregate Base, Breaker Run Haul & Place, Compaction A	CY	70	0	70	\$12.00	\$840.00
30403 Aggregate Base, Pit Run Haul & Place, Compaction A	CY	0	70	70	\$12.00	\$840.00
					Total	\$4,889.50

All items are contract quantities.

LS = Lump Sum

STA = Station of 100'

CY = Cubic Yard

Note: Aggregate Quantities shown are loose volume hauled. This quantity is estimated by calculating compacted in place volume and adding 25%.

CONSTRUCTION NOTES

151 – CONTROL OF WORK

Construction Staking: The Forest Service will initially set all construction stakes. Clearing limits will be designated with pink flagging and/or lath with pink flagging. It is the responsibility of the contractor to maintain the construction stakes, lath, and flagging for the duration of the project.

Inspection of Construction: Furnish written records documenting aggregate hauled and placed. Records must show, at a minimum, date, pit location, road number, quantity, and be signed by the construction representative. Submit records to the Engineering Representative as the work progresses.

Traffic Control: Traffic Control signs must be in place during construction of the intersection with M-123. (Follow MDOT signing rules.) This work is estimated and included under item 10102, Temporary Traffic Control.

Purchaser must call MISS DIG (811) before beginning work on the intersection with M-123. Purchaser must also contact MDOT before working on this intersection.

201 – CLEARING AND GRUBBING

Slash Disposal: Remove all slash from within 25' of the edge of clearing of M-123.

203 – EXCAVATION

Construction Tolerances:

Roadbed width +1.0'
Alignment 2.0'
Slopes +/- 1/2:1

Grade Tolerance: Profile grade closely follows existing ground, cuts and fills of up to 1' are expected.

304 – AGGREGATE

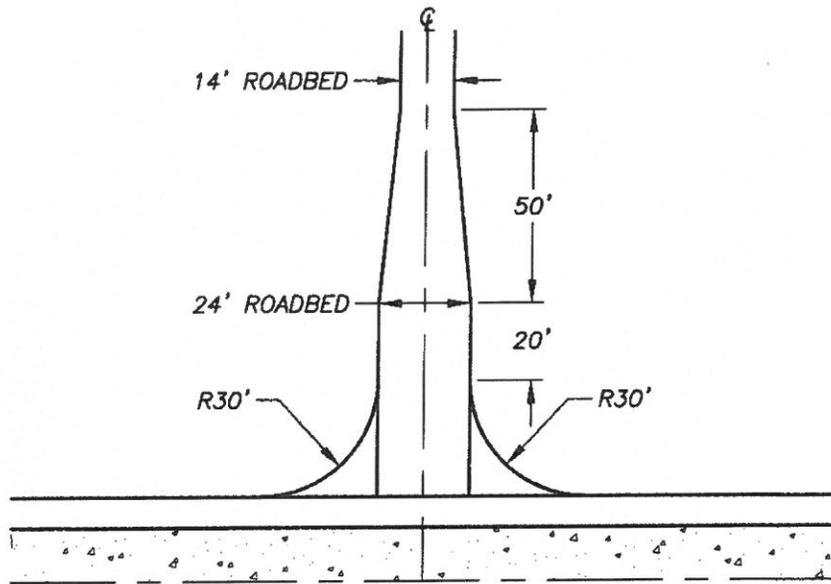
Source: Contractor shall be responsible for obtaining a source for item 30401. Material shall be gradation MDOT 23A crushed aggregate. An approved source for this material is the Government Stockpile located in the Cad Soo Pit. If the Contractor requests (using Form 2400-16), and the Forest Service agrees, the contractor would be allowed to use this source of material. The contractor would be required to pay the Forest Service a fee of \$7.50 per cubic yard to cover the cost of processing this material; this is covered under item 30401A in the schedule of items. Prior to the loading and hauling of any crushed aggregate, the engineer would designate the exact location of the material for this project. Other aggregate sources must be approved in writing before use.

The above also applies to item 30402 (Breaker Run), except that the processing fee for the Breaker Run would be \$7.00 per cubic yard.

A backup source for both the 23A and the Breaker Run would be the Supe Pit, if material is not available in the Cad Soo Pit.

Item 30403 (Pit Run) is also available at either pit.

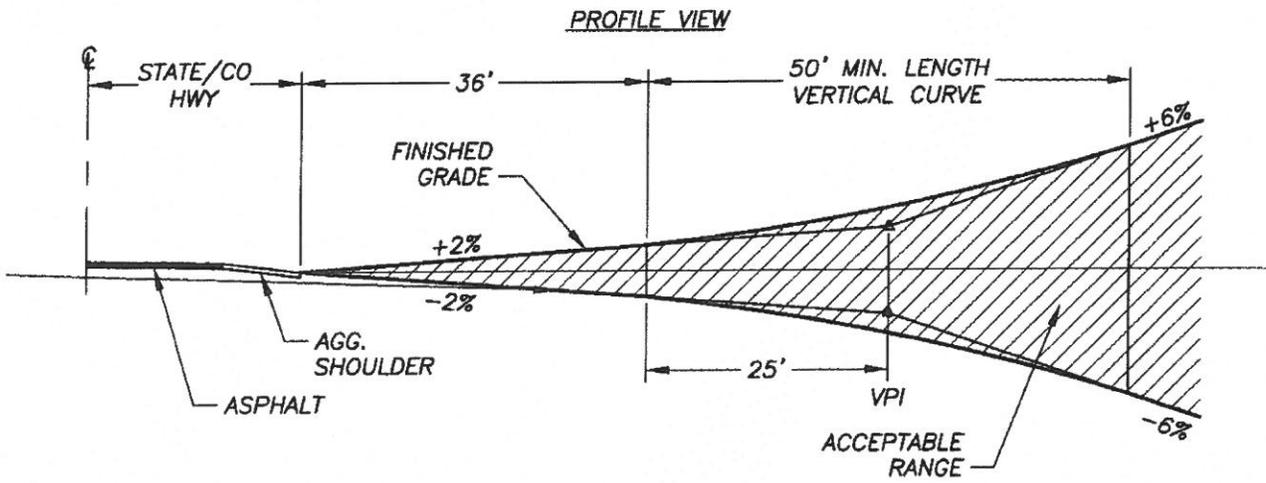
Prior to the placement of the aggregate base, the proposed portion of the roadbed shall be approved in writing by the Engineer.



TYPICAL INTERSECTION – STATE/COUNTY
HWY INTERSECTION

CONSTRUCT THE 3028 INTERSECTION WITH M-123 TO THIS TYPICAL OR AS STAKED.

SAMPLE



TYPICAL STATE/COUNTY HWY APPROACH GRADE

RUBY SALE ROADS

SHEET TITLE
STATE HWY INT TYPICALS

SCALE
NO SCALE

FILE NO.
HI-536

SHEET
5 OF 8

DESCRIPTION OF WORK

ROAD NO.
3027

DETAILS

LOCATION
(STATION)

TYPICAL CROSS
SECTION

CLEARING AND
GRUBBING

EXCAVATION

AGGREGATE
BREAKER RUN

SAMPLE

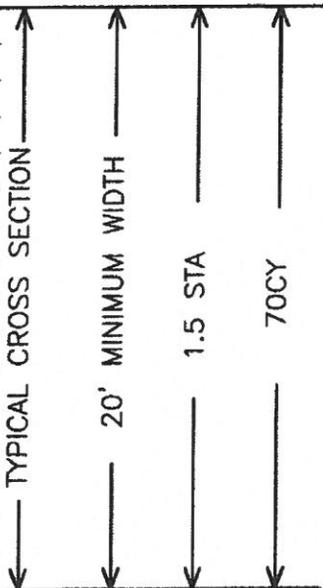
RECONSTRUCT/REALIGN ROADBED AS
STAKED IN ORDER TO SOFTEN CURVE.

INTERSECTION W/ TRAIL CORRIDOR

POE
1+50

1+00

0+00
POB



RUBY SALE ROADS

SHEET TITLE
DESCRIPTION OF WORK

SCALE
NO SCALE

FILE NO.
HI-536

SHEET
6 OF 8

DESCRIPTION OF WORK

ROAD NO.
3028

LOCATION
(STATION)

TYPICAL CROSS
SECTION

CLEARING AND
GRUBBING

EXCAVATION

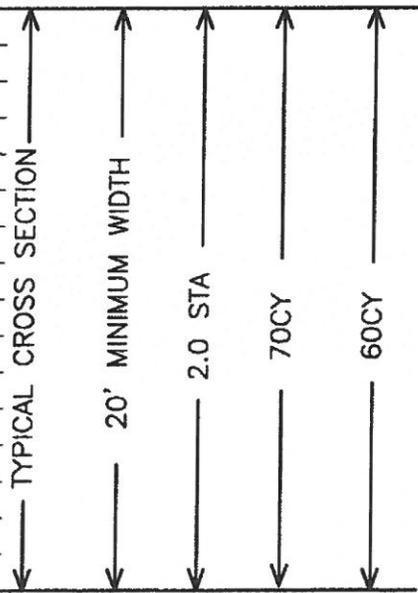
AGGREGATE
PIT RUN

AGGREGATE
23A

DETAILS

SAMPLE

POE
1+00



RECONSTRUCT INTERSECTION AS
STAKED TO IMPROVE NORTHERN
TURNING RADIUS.

INTERSECTION W/ M-123

0+00
POB

RUBY SALE ROADS

SHEET TITLE
DESCRIPTION OF WORK

SCALE
NO SCALE

FILE NO.
HI-536

SHEET
7 OF 8

HIAWATHA NATIONAL FOREST

SPECIFICATIONS FOR TIMBER SALE ROADWORK

Ruby Timber Sale

Index of included specifications:

Section 101 – Control of Work

Section 201 – Clearing and Grubbing

Section 203 – Excavation

Section 304 – Aggregate

SAMPLE

SECTION 101 – CONTROL OF WORK

101.01 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.

101.02 Inspection of Construction.

Maintain an adequate inspection system and perform such inspections as will ensure that the work performed under the contract conforms to contract requirements. Record the work and perform calculations to determine quantities for each work item. Maintain complete inspection records and make them available to the Government. Use an acceptable format for measurement records and include, at a minimum: project name, work item, date the work was performed, location of the work, measured quantity, calculations made to arrive at the quantity, and name of person(s) measuring the work.

The presence or absence of a Government inspector does not relieve the Contractor from any contract requirement, nor is the inspector authorized to change any term or condition of the specification without the Contracting Officer's written authorization.

The Contractor shall, without charge, replace or correct work found by the Government not to conform to contract requirements, unless in the public interest the Government consents to accept the work with an appropriate adjustment in contract price. The Contractor shall promptly segregate and remove rejected material from the premises.

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

101.03 Public Traffic.

Description

This work consists of controlling and protecting public traffic adjacent to and with the project. All signing shall conform to the Michigan Manual on Uniform Traffic Control Devices (MMUTCD)

General

Unless otherwise provided for, keep existing roads open to all traffic during road improvement work, and maintain them in a condition that will adequately accommodate traffic. Delays may not exceed 30 minutes at any one time followed by an open period of no less than 5 minutes.

Perform no work that interferes or conflicts with traffic or existing access to the roadway surface until a traffic control plan has been approved. Post construction signs and traffic control devices in conformance with MUTCD. All required signs will be in place and approved prior to beginning work on project.

If the Contractor agrees in writing to allow public traffic to use a new road being constructed prior to completion, it will be considered an existing road for traffic control purposes.

Temporary Traffic Control

Install and maintain temporary traffic control devices adjacent to and within the project as required by the approved traffic control plan and the MUTCD. Install and maintain traffic control devices as follows:

- (a) Furnish and install traffic control devices before the start of construction operations.
- (b) All detours outside of clearing limits will be approved in writing by the Contracting Officer as part of the traffic control plan.
- (c) Install only those traffic control devices needed for each stage or phase.
- (d) Relocate temporary traffic control devices as necessary.
- (e) Remove devices that no longer apply to the existing conditions.
- (f) Immediately replace any device that is lost, stolen, destroyed, or inoperative.
- (g) Keep temporary traffic control devices clean.
- (h) Remove all temporary traffic control devices upon contract completion or when approved.
- (i) When required, use flaggers certified by the American Traffic Safety Services Association, the National Safety Council, the International Municipal Signal Association, a state agency, or other acceptable organization. Perform the work described under MUTCD Part 6. Use type III, VII, VIII, or IX retroreflective sheeting on flagger paddles. Do not use flags. Flaggers must wear high visibility safety apparel as required by MUTCD 6E.02.

Temporary Closures

Road segments may be closed as agreed to by the CO. The maximum consecutive days of closure shall be followed by a minimum number of consecutive days open to traffic. Maintain traffic control devices during closure period(s). Appropriate barricades and signs will be erected and maintained as shown in the traffic control plan or as otherwise designated.

Prior to closing roads during construction, give written notice to the Contracting Officer at least 10 days in advance.

SECTION 201 – CLEARING AND GRUBBING

DESCRIPTION

201.01 This work shall consist of clearing, grubbing, and disposing of or treatment of timber, construction slash, and debris.

CONSTRUCTION

201.02 **CLEARING & GRUBBING.** All debris, trees, stumps, roots, and other protruding vegetative material within the clearing limits shall be cleared, grubbed, removed, and disposed of, except that undisturbed stumps in locations **SHOWN ON THE DRAWINGS** may remain.

Cut stumps to be grubbed to 12” maximum height before or immediately after grubbing.

Roadway must be grubbed. Stump holes caused by grubbing shall be leveled. Areas outside the roadway but within the clearing limits need not be grubbed. Height of stumps left shall not exceed 12” above ground.

Branches on remaining trees or shrubs shall be trimmed to give a clear height of 14 feet above the roadbed.

Trim tree limbs as near flush with the trunk as practicable.

Clearing shall be done in such a manner to prevent damage to remaining trees and other property.

Grubbing shall include removal of stumps and exposed roots over 3” in diameter.

201.03 **PIONEERING.** Pioneering operations shall be conducted to minimize mixing of slash and excavated material. Final back slopes shall not be undercut, material shall not be deposited outside the fill and excavation limits, nor shall drainage be restricted.

201.04 **DISPOSAL.** Treatment of construction slash shall be accomplished by scattering slash outside the clearing limits without damaging trees. All logs shall be limbed. Logs and stumps shall be placed away from trees, positioned so they will not roll, and not be placed on top of one another. Scattered slash shall be lopped and scattered to reduce concentrations and made to lie within four feet of the ground concurrent with the clearing and grubbing operations unless other requirements are **SHOWN ON THE DRAWINGS**. Grubbed and scattered stumps shall be turned upright with roots down.

Dispose of merchantable timber designated for removal according to the B(BT) provisions of the timber sale contract. Deck merchantable timber adjacent to the roadway in areas approved by the Engineer.

MEASUREMENT

201.05 When Clearing & Grubbing is shown in the Schedule of Items, the work will be either on a lump sum basis where no measurement will be made, or on an area basis. For the area basis the original design quantity as shown on the Schedule of Items will be the final quantity, unless adjustments are made as specified in the changes provision. The design quantity is the number of acres calculated to be cleared and/or grubbed within the limits SHOWN ON THE DRAWINGS.

SAMPLE

SECTION 203 – EXCAVATION

DESCRIPTION

203.01 This work shall consist of all excavation regardless of its nature, borrow excavation, embankment construction, and shaping of roadway including such items as drainage dips, ditches, turnarounds, and other subsidiary work.

CONSTRUCTION

203.02 All suitable excavated material shall be used to construct a roadway conforming to the typical section(s) and tolerances **SHOWN ON THE DRAWINGS**.

Side casting and end dumping will be permitted for embankment construction; however, excavation and embankment shall be confined within the roadway limits. Compaction shall be accomplished by operating equipment over the full width of the traveled way. Rocks too large for incorporation shall be placed to the side of the embankment so they will not roll, obstruct drainage, or hinder use and maintenance of the road. Excess excavation and unsuitable material shall be disposed of as **SHOWN ON THE DRAWINGS** or in locations approved by the Engineer.

Location and requirements for borrow excavation are **SHOWN ON THE DRAWINGS**.

The finished slopes shall be left in a roughened condition to facilitate vegetative growth.

Rocks in the roadbed that protrude less than 2" above the finished road surface will be allowed to remain in place.

When specified, topsoil shall be salvaged in sufficient quantity to meet the quantity requirements **SHOWN IN THE SCHEDULE OF ITEMS**. Topsoil shall consist of loose, friable, sandy loam, free of admixture of subsoil, refuse, stumps, roots, rocks, brush, weeds, of other material that would be detrimental to the development of vegetative growth. Topsoil, as used herein, shall mean that portion of the soil profile defined technically as the "A" horizon by the Soil Science Society of America.

MEASUREMENT

203.03 The method of measurement will be on a linear basis or cubic yard basis. In both cases the original design quantity as shown on the Schedule of Items will be the final quantity, unless adjustments are made as specified in the changes provision. For linear measurements the design quantity is the length of road measured along the centerline. Quantity is computed using the average end area method.

SECTION 304 – AGGREGATE

DESCRIPTION

304.01 This work shall consist of furnishing, hauling, and placing one or more courses of aggregate surface course on the approved subgrade. Aggregate shall be pit-run, screened, crushed, or furnished by the Government as SHOWN IN THE SCHEDULE OF ITEMS.

MATERIALS

304.02 Materials shall be obtained from sources SHOWN ON THE DRAWINGS or other approved sources. Aggregate quality, production, and gradation requirements are SHOWN ON THE DRAWINGS.

When a gradation is specified, the Contractor shall submit test results and a Certificate of Compliance that states that the gradation of the aggregate meets the contract requirements. Aggregates shall be stockpiled, removed, transported, and placed in a manner that will preserve specified gradation and avoid contamination. Samples may be required at any time to validate gradation.

CONSTRUCTION

304.03 Prior to aggregate placement, the proposed portion of the roadbed shall (1) be completed in accordance with the specifications; (2) have hauling and spreading equipment operated uniformly over the full width; and (3) be approved in writing by the Engineering Representative.

The aggregate shall be spread in a uniform layer, with no segregation of size, and to a loose depth that shall have the required thickness when compacted. The maximum compacted thickness of any one layer shall not exceed six inches.

The aggregate shall be compacted by one of the following methods as specified on the Schedule of Items:

Compaction A. Aggregate shall be compacted by operating spreading and hauling equipment over the full width of each layer of the aggregate.

Compaction B. Each layer of aggregate shall be compacted to a density of at least 95 percent of the maximum density, as determined by AASHTO T 99, Method C or D.

The final compacted surface shall be smooth and the thickness shall not vary more than the tolerance SHOWN ON THE DRAWINGS. The compacted thickness shall not be consistently above or below the specified thickness.

MEASUREMENT

304.04 The method of measurement will be on a volume basis or a weight basis as shown in the Schedule of Items. The volume basis will be the computed number of cubic yards adjusted for compaction, that is loose volume. The original design quantity shown in the Schedule of Items will be the final quantity unless adjustments are made as specified in the changes provision.