



MICHIGAN DEPARTMENT OF NATURAL RESOURCES  
FOREST, MINERAL AND FIRE MANAGEMENT

**TIMBER SALE PRESCRIPTION**

**GENERAL**

<b>Date</b> 05-09-08	<b>Forest Management Unit</b> Roscommon
<b>Timber Sale Number (if applicable)</b> 71-032-08-01	<b>Sale Name (or prescription name)</b> Beaver Road Mix

**LOCAL CONTACT**

<b>Telephone Number</b> (989) 275-4622	<b>FAX Number</b> (989) 275-6203
<b>Name</b> Jason Hartman	<b>Email Address</b> hartmajp@michigan.gov

**Map of Project Area Attached**

**LEGAL DESCRIPTION**

T21N R3W Section(s)15 Description S ½ NE ; N ½ SE ; NESW

Year of Entry: 2008 Compartment(s):140 Stand Number(s): 85, 90, 91, 94

**THIS TIMBER SALE CONTRACT IS BASED ON THE FOLLOWING ACREAGE**

Estimated Acres: 125 Source:  OI  GPS  Other \_\_\_\_\_  
Payment will be made on the basis of these estimated acres.

**TREATMENT & OBJECTIVE**

STAND #	COVER TYPE	ACRES	BA	TREATMENT	MANAGEMENT OBJECTIVE
85	Mixed Pine	19	70	Shelterwood	Red pine / White Pine / Res. BA 40
90	Aspen	16	90	Clear-cut w/ res.	Aspen
91	Red oak(09)	56	95	Thinning	Red oak / mixed pine / Res. BA 70
94	Aspen/Oak	34	90	Clear-cut w. res.	Aspen/ Oak

**PRESCRIPTION**

- ST 85. Mark to cut leaving large rp and wp seed trees. Aspen, oak, and jp will be spec cut.
- ST 90: Mark to leave 5-10% retention of indiv. trees for mast, large pine, and hollow aspen.
- ST 91: Mark oak and pine to cut leaving crop trees, oak mast trees, and large windfirm pine.
- St 94: Mark to leave 5-10% retention of indiv. trees for mast, large pine, and hollow aspen.

**Access:** M-18 to Pond Rd. to Grass Lk Rd. to Beaver Rd.

DNR PREPARATION WORK TO BE DONE PRIOR TO CONTRACT WORK	ESTIMATED DATE
Digital aerial images will be provided	When paint is distributed.

**CONTRACT WORK CAN BEGIN:**  
 Immediately      Date: \_\_\_\_\_  
**CONTRACT WORK MUST BE COMPLETED BY:** Date 12/15/2008

**PAIN T LINE WORK**

This is included in the bid     This is not included in the bid

**Paint line work to be performed: (See attached map for locations)**

TYPE OF LINE	WORK TO BE DONE	NOT APPLICABLE	PAINT COLOR	
Private boundary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Blue	<input type="checkbox"/> Other:
Sale boundary	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Red	<input type="checkbox"/> Other:
Sale cutting unit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yellow	<input type="checkbox"/> Other:
Stand type line	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Other:

**Exclusions to mark and why:**

Stand 91 has a 2 ac exclusion of white pine poletimber that needs red line around it. See map

**Standards for marking lines against private land:**

**AREA CALCULATION**

This is included in the bid     This is not included in the bid

UNIT	METHOD	STANDARD
Sale	<input checked="" type="checkbox"/> GPS <input type="checkbox"/> String Chain <input type="checkbox"/> Other	
Payment Unit	<input checked="" type="checkbox"/> GPS <input type="checkbox"/> String Chain <input type="checkbox"/> Other	
Stand	<input type="checkbox"/> GPS <input type="checkbox"/> String Chain <input type="checkbox"/> Other	

**Special Instructions:**

Acres need to be split by stand.

See appendix A regarding position mode, differential correction, and PDOP.

**TIMBER CRUISING SPECIFICATIONS**

This is included in the bid     This is not included in the bid

**Required Basal Area Factor:**     10     20    Other:

**Cruise Line Directions:** any

CRUISING UNITS	1 point per acre	SPACING (CHAINS)
Std 85	1	3 X 3
Std 90	1	3 X 3
Std 91	1	3 X 3
Std 94	1	3 X 3
<b>TOTAL NUMBER OF CRUISE POINTS</b>	125	

**Cruise Special Instructions:**

Cruise all species separately, unless otherwise noted. Split red oak and mixed oak.

Residual BA by species should also be recorded at each point

Cruise data should be separated by stand and payment unit.

**TIMBER MARKING SPECIFICATIONS**

This is included in the bid     This is not included in the bid

Precise specifications to be delineated at pre-work meeting with DNR staff

**Total Residual BA (Basal Area):** St 91= 60 (Min 50 to Max 70),    St 85= 40 (Min 30 to Max 50),

TREATMENT		NUMBER	SIZE
Regeneration Gaps Per Acre		none	
Girdled Trees Per Acre		none	
PRODUCT	MARKING SYMBOL	MINIMUM DBH	TOP DIB
Sawlogs	Slash on both sides	10.0"	9.0"
Pulpwood	Slash on both sides	4.6"	4.0"

TYPE OF WORK	WORK TO BE DONE	NOT APPLICABLE	PAINT COLOR
Trees marked to leave	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Green
Trees marked to cut	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Orange <input type="checkbox"/> Other

**TALLY INTENSITIES**

SPECIES / PRODUCT	
None	

**SPECIES TO FAVOR:** Red oak crop trees and mast trees. Large windfirm red pine and white pine.  
**SPECIES TO REDUCE:** Mixed oak (pin oak / black oak)  
**SPECIAL MARKING INSTRUCTIONS:**  
 Mark using "Crop Tree Release" method (see *The Compleat Marker* for more info).  
 Retain large windfirm pine, mast trees, and hollow aspen.

Unless otherwise specified, the tally sheets used must be those provided by the Forest, Mineral and Fire Management Unit.

**RESTRICTIONS:**

**PAINT:**

1. Call Jason Hartman at (989) 275-4622 ext 2742, to make arrangements for paint.
2. Paint will be supplied from Roscommon Field Office.
3. Contractor's work schedule must coincide with the DNR work schedule for paint supply.
4. The DNR will not be available on weekends or evenings.

**DELIVERABLES:**

1. A list of names that marked or cruised each payment unit, including a Map of this info.
2. A summary of paint used in quarts.
3. Tally summaries for each payment unit (one summary regardless of the number of markers) and all of the original tally sheets.
4. GPS files for any GPS work.

ROSCOMMON MANAGEMENT UNIT  
MARKING BOUNDARIES AND AREA

1. The attached type map delineates the contract marking area.
2. Marking must be done in dry weather and when tree surfaces are not wet.
3. Paint the boundary line in such a way that it can be seen both from the inside of the sale area and when walking along the line from either direction (two sides).
4. The Roscommon Management Unit does not contract the marking of private lines on any of our timber sales. Management Unit personnel will mark private lines with blue paint and the contractor will mark remaining stand(s) with red paint so as to obtain complete closure of all stands designated for cutting.
5. If sale is to be divided into cutting units, line location will be as shown on attached map of sale. Cutting lines will be marked with yellow paint on four sides of trees.
6. Place Marks approximately six feet above the base of the tree.
7. The contractor will keep track of total quarts of paint used per-sale by color.
8. Contractor must use GPS to determine acreage.
9. Position Mode must be set so that GPS receiver collects data from a minimum of four satellites and 3D.
10. GPS receiver must log PDOP, SNR, number of satellites, and mode of collection (Manual/GPS).
11. PDOP mask must not exceed 7. This can be modified if approved by the Unit Manager.
12. GPS data must be differentially correct and provided in either ESRI .SHP or Trimble .COR format. Files will contain PDOP(HDOP at the discretion of the Unit Manager), SNR, number of satellites, and mode of collection (Manual/GPS) for each point collected. In addition, supply a disk of traverse file along with hard copy of the corrected traverse file.

ROSCOMMON MANAGEMENT UNIT  
TIMBER CRUISING SPECIFICATIONS

1. Cruise at a rate specified in the Timber Sale Preparation Prescription.
2. Use a 10-factor prism for all plots. Plots shall be evenly distributed throughout sale area.
3. Use the product standards to determine products and heights of products. See appendix D of product summary in the "The Compleat Marker: A Guide to Managing Northern Hardwoods on Michigan State Forests".
4. Mark location of plots on the map, using the plot number.
5. Unless otherwise agreed to by the contract administrator and the contractor, plot center will be marked by a stake or stick firmly inserted in the ground (not snow) with ribbon attached to it at a height of not less than two feet above the ground, and labeled with the plot number. In addition, ribbon at least 12 inches long must be attached to a tree closest to plot center.
6. All cruise sheets must have compartment number, stand number, unit number, prism factor, date, individual tree species, and the cruiser's name.
7. A copy of the POSALE program will be provided to the successful bidder for cruise data entry. Original cruise sheets and a disk containing the cruise data exported from POSALE must be delivered upon the completion of the sale. **Note: At the cruise data entry screen in POSALE, when prompted to enter the stand acres, enter your actual GPS acres for that stand—NOT the contract's estimated inventory-based acreage.**

ROSCOMMON MANAGEMENT UNIT  
LEAVE TREE MARKING SPECIFICATIONS

1. Leave Trees must be marked at breast height and also stump marked with green paint.
2. Paint on leave trees must be able to be seen from all sides of the tree.
3. Den trees and good mast trees, if found, must be marked to leave for wildlife.