



MICHIGAN DEPARTMENT OF NATURAL RESOURCES
FOREST, MINERAL AND FIRE MANAGEMENT

TIMBER SALE PRESCRIPTION

GENERAL

Date 08-20-08	Forest Management Unit Roscommon
Timber Sale Number (if applicable) 71-003-09-01	Sale Name (or prescription name) Compartment 166

LOCAL CONTACT

Telephone Number (989) 275- 4622	FAX Number (989) 275 - 6203
Name Dale Ekdom	Email Address ekdomd@michigan.gov

Map of Project Area Attached

LEGAL DESCRIPTION

T21N R3W Section(s) 23 & 24 Description Sec. 23 – NW1/4; NWNE & Sec. 24 – SENE & NESE
Year of Entry: 2009 Compartment(s):166 Stand Number(s): 15, 16, 35

THIS TIMBER SALE CONTRACT IS BASED ON THE FOLLOWING ACREAGE

Estimated Acres: 90 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
15	08	25	130	Thinning	Oak with Conifer Component
16	09	39	110	Seed Tree	Oak with Conifer Component
35	09	26	140	Thinning	Oak with Conifer Component

PRESCRIPTION

- Stand 15 – Thin to 90 SF/acre of oak, mark oak to cut, retain conifers where present, manage for the best tree in place by using crop tree release method according to the “Complete Marker”.
- Stand 16 – Seed Tree marking oak to leave, leaving 40 SF/acre residual of oak seed trees spaced evenly throughout the stand, retain large healthy crowned oak as a seed source, retain all conifers where present, all other hardwood to be removed via specification.
- Stand 35 – Thin to 90 SF/acre of oak, mark oak to cut, retain conifers where present, manage for the best tree in place by using crop tree release method according to the “Complete Marker”.

DNR PREPARATION WORK TO BE DONE PRIOR TO CONTRACT WORK	ESTIMATED DATE
Quality digital aerial images will be provided	By December 1, 2008
Boundary will be marked with red paint, and traversed	By December 1, 2008

CONTRACT WORK CAN BEGIN:
 Immediately Date: December 1, 2008
CONTRACT WORK MUST BE COMPLETED BY: June 30, 2009

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"/>	Red	<input type="checkbox"/> Other:
Sale cutting unit		<input 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:

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	GPS <input type="checkbox"/> String Chain <input type="checkbox"/> Other	
Payment Unit	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:

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(s)	SPACING (CHAINS)
TOTAL NUMBER OF CRUISE POINTS		

Cruise Special Instructions:

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 Merchantable Residual BA (Basal Area): Stand 15 and 35: 90 (Minimum 80 to Maximum 100)
 Stand 16: 40 (Minimum 30 to Maximum 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 – Stand 16
Trees marked to cut	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Orange – Stand 15 & 35 <input type="checkbox"/> Other

TALLY INTENSITIES

SPECIES / PRODUCT	
None	

SPECIES TO FAVOR: White Oak and Red Oak
SPECIES TO REDUCE: Northern Pin Oak
SPECIAL MARKING INSTRUCTIONS:
 Mark using "Crop Tree Release" method (see *The Complete Marker* for more info).
 Retain large wind firm pine, den trees, and hollow aspen.

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

RESTRICTIONS: Marking must be done in "snow-free" conditions so trees can be stump marked

PAINT:

1. Call Dale Ekdorn at (989) 275-4622 ext 2741, 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 if applicable (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.