



TIMBER SALE PRESCRIPTION

GENERAL

Date 8/29/08	Forest, Mineral and Fire Management Unit Grayling
Timber Sale Number (if applicable) 728060901	Sale Name (or prescription name) Compartment 252 Oak Jack

LOCAL CONTACT

Name Joan L. Charlebois	Telephone (989) 348-6371 ext: 7443
Email Address charlebj@michigan.gov	FAX (989) 348-8825

Map of Project Area Attached

LEGAL DESCRIPTION

T27N R02W Section(s) 4, 5 & 6 Description: Section 4: W1/2NE, E1/2NW & NWNW. Section 5: N1/2. Section 6: W1/2NE, NW & N1/2SW.

Compartment: 252 (YOE 2009) stands 4, 10, 18, 19 & 24

THIS TIMBER SALE CONTRACT IS BASED ON THE FOLLOWING ACREAGE

Estimated Acres: 276 Source: OI GPS Other _____

Payment will be made on the basis of these estimated acres.

TREATMENT & OBJECTIVE

STAND #	COVER TYPE	ACRE s	BA	TREATMENT	MANAGEMENT OBJECTIVE
04	O6	104	110	Selection	Oak
10	O6	44	70	Final Harvest	Oak
18	O6	59	90	Final Harvest	Oak
19	J6	15	100	Final Harvest	Aspen
24	O6	54	120	Shelterwood-Seed	Oak

PRESCRIPTION

1. Stand 04 - Selection: Cut all Aspen, Jack Pine and Red Maple.
2. Stand 10 - Final Harvest: Cut all species 9" DBH and larger.
3. Stand 18 - Final harvest with retention.
4. Stand 19 - Final harvest with retention.
5. Stand 24 - Shelterwood-Seed: Mark-to-leave oak and red pine using green paint to a total residual BA of 30 square feet.

Access: See attached map

DNR PREPARATION WORK TO BE DONE PRIOR TO CONTRACT WORK	ESTIMATED DATE
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None	

CONTRACT WORK CAN BEGIN

Immediately Date: 10/1/2008

CONTRACT WORK MUST BE COMPLETED BY April 30, 2009

PAINT 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 checked="" 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:
Retention island & bog buffer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Green	<input type="checkbox"/> Other:

Exclusions to mark and why: For retention: In stands 10, 18 & 19, paint the sale boundary line so that it excludes a one-chain wide strip along the snowmobile trail. In addition, in stand 18, delineate two one-acre retention islands (as shown on the attached map) and in stand 19, delineate one half-acre retention island (as shown on the attached map). All bog/wetland inclusions that occur within the contract stands must have a one-chain wide buffer delineated with green paint.

Standards for marking lines against private land

N/A

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 checked="" type="checkbox"/> GPS <input type="checkbox"/> String Chain <input type="checkbox"/> Other	
Retention Island & Bog Buffer	<input checked="" type="checkbox"/> GPS <input type="checkbox"/> String Chain <input type="checkbox"/> Other	

Special Instructions: GPS files must provide acreage for the total sale area and for each stand, payment unit, retention island and bog buffer. See APPENDIX A.

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** standard systematic grid

CRUISING UNITS	NUMBER OF PLOTS PER ACRE	SPACING (CHAINS)
1 & 2 (stand 4)	0.6	4 X 4
3 (stand 10)	1	3 X 3.3
4 & 5 (stand 18)	0.8	3 X 4
6 (stands 19)	1	3 X 3.3
7 (stand 24)	0.9	3 X 3.8
TOTAL NUMBER OF CRUISE POINTS	220	

Cruise Special Instructions: Cruise all species separately. Separate cruise data by stand. See APPENDIX 8 (will be provided upon request) and APPENDIX B.

Unless otherwise specified, the tally sheets used must be those supplied by the Forest, Mineral and Fire Management 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 Merchantable Residual BA (Basal Area): 30 (Minimum 20 to Maximum 40)

TREATMENT	NUMBER	SIZE
Regeneration Gaps Per Acre	0	
Girdled Trees Per Acre	0	

PRODUCT	MARKING SYMBOL	MINIMUM DBH	TOP DIB
Sawlogs			
Sawbolts			
Pulpwood			

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 <input type="checkbox"/> Other
Trees marked to cut	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Orange <input type="checkbox"/> Other

TALLY INTENSITIES	
SPECIES / PRODUCT	RATIO
	1 :

SPECIAL MARKING INSTRUCTIONS: In stand 24, mark-to-leave oak and red pine using green paint to a total BA of 30 square feet. Favor for residual: healthy oak with good crown development (particularly white oak when it meets those criteria), and red pine that also have good form and are likely to be capable of withstanding increased snow load and wind exposure.

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

RESTRICTIONS

1. Forest, Mineral and Fire Management Division must to be able to identify who did what on the timber sale.
2. The contractor may not have more than two markers in one payment unit without prior approval.
3. Each marker should have an assigned area to mark (not strips).

PAINT

1. Call Joan Charlebois at (989) 348 - 6371 ext. 7443 to make arrangements for paint.
2. Paint will be supplied from the Grayling 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 and cruised each payment unit.
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. See also Appendix B.
4. GPS files for any GPS work. See also Appendix A.
5. Cruise data entered into POSALE and exported in an electronic format. Use the sale name and number from page 1.

Grayling Management Unit **Boundary Marking and Area Calculation**

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 from both the inside of the sale area and when walking along the line from either direction (two sides). Each boundary line tree must be stump-marked at the base of the stump (one side) between the roots extending all the way to the ground.
4. Paint a unit line which will constitute the payment unit boundary, dividing the sale into payment units as shown on the attached map.
5. Place marks approximately six feet above the base of the tree.
6. The contractor will keep track of total quarts of paint used per sale by color.
7. The contractor will use a GPS unit to determine enclosed acreage to the nearest one-tenth acre, unless an alternative method is approved prior by Unit Management.
8. GPS units used must be compatible with Pathfinder Office (2.01 or later) or be capable of producing an ArcView-compatible shapefile. Supply electronic and paper copies of the corrected and edited (outlier/erroneous points cleaned up) GPS file.
9. Position Mode must be set so that the GPS receiver collects data from a minimum of four satellites. This must be recorded in the position properties window after downloading.
10. The GPS receiver must log PDOP or HDOP. This log must be recorded in the position properties window after downloading.
11. PDOP mask must be less than or equal to 8.
12. SNR setting must be greater than or equal to 4.
13. Sale boundaries are to be recorded as an area feature, not a line. Isolated stands must each be recorded as separate area features. Retention islands and bog buffers must also be recorded as area features.
14. Payment Unit lines must be recorded as line features.

Grayling Management Unit Timber Cruising Specifications

1. Cruise designated timber using Appendix 8 Product Standards to determine products and heights of products. Separate cruise data by species/product. Appendix 8 will be provided upon request.
2. Cruise at the sampling intensity specified in the Timber Sale Prescription and apply that rate to your actual GPS'd stand acreage.
3. Separate cruise data by stand.
4. Use a 10-factor prism.
5. Mark location of plots on the map, using the plot number.
6. Record residual BA of trees where applicable. Record any mark-to-girdle trees separately. Do not count mark-to-girdle trees toward the specified residual BA target.
7. 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 a ribbon attached to it at a height of not less than two feet above the ground, and labeled with the PU/stand number and plot number. In addition, ribbon at least 12 inches long must be attached to the tree closest to plot center.
8. All cruise sheets must be labeled with the compartment #, stand #, unit #, prism factor, date, individual tree species, and the cruiser's name. If a portable data recorder is used for cruising, submit a summary sheet that details the rest of the required information.
9. The Grayling Management Unit Office will provide cruise sheets.
10. **A copy of the "POSALE" program will be provided to the successful bidder for cruise data entry. Original cruise sheets and an electronic copy of 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'd acres – NOT the contract's estimated inventory-based acreage. Also, if retention islands or bog buffers were delineated within the sale area, do not include those acres in the entered POSALE stand acres.