



TIMBER SALE PRESCRIPTION

GENERAL

Date	Forest, Mineral and Fire Management Unit
10/2/2012	Grayling
Timber Sale Number (if applicable)	Sale Name (or prescription name)
720011301	Comp 176 Contract Oak

LOCAL CONTACT

Name	Telephone
Tom Barnes	(989) 348-6371 ext: 7449
Email Address	FAX
Barnest2@michigan.gov	(989) 348-8825

Map of Project Area Attached

LEGAL DESCRIPTION

T27N R04W Section 9 Description: SW1/4
 Compartment(s): 176 (2010 YOE) stand 30

THIS TIMBER SALE CONTRACT IS BASED ON THE FOLLOWING ACREAGE

Estimated Acres: 36 Source: Other GIS Payment will be made on the basis of these estimated acres.

TREATMENT & OBJECTIVE

STAND NUMBER	TREATMENT NAME (IFMAP)	COVER TYPE	ACRES	BA Range	TREATMENT	MANAGEMENT OBJECTIVE
30		O9	36	140	Group Selection	Mixed upland decid. w/ conifer

PRESCRIPTION

Stands 30 – Group Selection:

- Mark-to-cut down to 70 square feet of residual basal area.
- Red maple and aspen are designated cut species and do not need to be marked. The inventory estimates that there is 30 BA in red maple and 10 BA in aspen.
- Create 100-150' diameter regeneration gaps, two per acre, marking out all stems 2" DBH and up.
- Focus regen gap creation near 12"+ DBH oak stems and/or areas with a high proportion of poor-quality stems.

Access: North on Old 27, west on Batterson Road 3 miles, then approximately 1/10th of a mile south, off road, to the stand. Or take Batterson Road another quarter mile west, then go south on the snowmobile trail less than a half mile, to near the stand.

DNR PREPARATION WORK TO BE DONE PRIOR TO CONTRACT WORK ESTIMATED DATE

None

CONTRACT WORK CAN BEGIN Immediately **CONTRACT WORK MUST BE COMPLETED BY:** 6/01/2014

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	
Payment Unit Boundary	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yellow	<input type="checkbox"/> Other:
Sale Boundary - State	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Red	<input type="checkbox"/> Other:
Sale Boundary - Private	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Blue	<input type="checkbox"/> Other:
Leave Islands	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Green	<input type="checkbox"/> Other:

Exclusions to mark and why:

Note that most of this treatment area's north edge will have a shared boundary with an already-established timbersale. Do not slop-over into that adjacent harvest area.

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

Special Instructions:

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: North-south or east-west grid, by the spacing specified below if compass and pacing, or by a uniform square, GPS-calculated grid.

CRUISING UNITS	ESTIMATED ACRES	NUMBER OF PLOTS PER ACRE	APPROXIMATE SPACING (CHAINS)
30 & 130	36	1	3 x 3.3
TOTAL NUMBER OF CRUISE POINTS		36	

Cruise Special Instructions:

See Appendix B and Appendix 8 (Product Standards And Cruising Manual, revised 6-24-2011, will be provided upon request. Note on page 29 the addition of the Walkthrough Method for cruising edge points).

The type of tally sheet used must meet with the approval of the contract administrator.

TIMBER MARKING SPECIFICATIONS This is included in the bid Precise specifications to be delineated at pre-work meeting with DNR staff

Total Merchantable Residual BA (Basal Area): Refer to page 1 PRESCRIPTION for acceptable residual

TREATMENT	NUMBER	SIZE
Regeneration Gaps Per Acre	2	100-150 foot diameter
Girdled Trees Per Acre	NA	

PRODUCT	MARKING SYMBOL	MINIMUM DBH	TOP DIB
Sawlogs	Single slash on two opposite sides	9.1"	8.0"
Sawbolts	N/A		
Pulpwood	Single slash on two opposite sides	4.6"	4.0

TYPE OF WORK	WORK TO BE DONE	STANDS	PAINT COLOR
Trees marked to leave	<input type="checkbox"/>		<input type="checkbox"/> Green <input type="checkbox"/> Other
Trees marked to cut	<input checked="" type="checkbox"/>	30	<input checked="" type="checkbox"/> Orange <input type="checkbox"/> Other

TALLY INTENSITIES	
SPECIES / PRODUCT	RATIO
	1 :

SPECIAL MARKING INSTRUCTIONS:

Maintain a tally of the number of regeneration gaps created. See page 1 PRESCRIPTION details by stand and Appendix E.

Unless otherwise specified, the tally sheets used must be those provided by the DNR Management Unit.

RESTRICTIONS

1. Forest Resources Division staff must 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. Paint will be supplied from the Grayling Field Office.
2. Call (989) 348-6371 ext 7449 (Tom Barnes) or ext 7443 (Joan Charlebois) to make arrangements for paint.
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.
2. A summary of paint used (in quarts) by color.
3. A summary of the number of regeneration gaps created.
4. Tally summaries for each payment unit (one summary, regardless of the number of markers) and all of the original tally sheets.
5. GPS files and acreages for line running and area calculation work.
6. Cruise data entered into TSalePO and exported onto a disk or other electronic format. Use the sale name/number from page 1.

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

1. Establish sale boundary lines as shown on the attached map. Paint each line so that it can be seen from both inside the sale area and when walking along the line from either direction.
2. Establish payment unit lines as shown on the attached map. Paint each payment unit line so that it can be seen from both adjoining payment units and when walking along the line from either direction.
3. Marking must be done in dry weather and when tree surfaces are not wet.
4. Place bole marks approximately five feet above the ground.
5. Each line tree must be stump-marked at its base and extending onto the ground.
6. The contractor will use a GPS unit to determine acreage by stand and payment unit to the nearest acre, unless an alternate method is approved prior by the contract administrator.
7. GPS units must be compatible with Pathfinder Office (2.01 or later) or produce an ArcMap-compatible shapefile. Correct and edit (clean up outlier/erroneous points) the GPS files before submitting the data.
8. Required GPS receiver signal quality settings for data collection: a minimum of four satellites, with a maximum DOP (dilution of precision) of 5.
9. The GPS receiver must log and save DOP and SNR (signal-to-noise-ratio) data.
10. Sale boundaries must be recorded as area features, not lines. Isolated stands must be recorded as separate area features.
11. Payment Unit lines must be recorded as line features.

Grayling Management Unit Timber Cruising Specifications

1. Cruise designated timber using Appendix 8 Product Standards And Cruising Manual (revised 6-24-2011) to determine products and heights of products. Record cruise data by species/product as indicated in Appendix 8. Do not combine any species or products unless told to do so by the marking contract administrator.
2. Cruise sheets will be provided upon request. If the contractor prefers to use their own cruise sheets, the sheet format must meet with the approval of the marking contract administrator.
3. Record BA of residual trees by species unless otherwise specified by the marking contract administrator.
4. Cruise at the sampling intensity specified in the Timber Sale Prescription and apply that rate to your GPS-determined stand acreage.
5. Separate cruise data by stand or, if identified on the map, by cruising unit.
6. Use a 10-factor prism.
7. Mark plot locations on a map, using the plot number.
8. 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.
9. All cruise sheets must be labeled with the compartment #, stand #, cruising unit #, prism factor, date 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.
- 10. A copy of the "TSalePO" 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 TSalePO must be delivered upon completion of the contract field work.** Note: At the cruise data entry screen in TSalePO, when prompted to enter the stand acres, enter your actual GPS'd acres (rounded to the nearest whole acre) – NOT the contract's estimated inventory-based acreage. Enter each cruising unit's data separately, substituting the cruising unit number from the map when prompted for a stand number in TSalePO.

Grayling Management Unit
Oak Thinning Sale Preparation
Individual Tree Marking

1. Leave a residual BA as specified on page 1 of the **Timber Sale Preparation Prescription**.
2. Manage for the best tree in place.
3. Trees in multiple-stemmed clumps must be either all marked or all left unmarked. Do not partially mark within multiple-stemmed clumps of trees.
4. Remove high risk and suppressed Oak (trees showing signs of stress, such as epicormic branching, significant crown loss, damaged or potential damaged, or may not live another 10 years).
5. Where possible, retain 1-2 wildlife den trees per acre.
6. Create regeneration gaps as specified on page 1 of the **Timber Sale Preparation Prescription**. Note that the specified diameter is the crown opening, not the distance between tree boles.
7. Marking must be done in dry weather and when tree surfaces are not wet.
8. Paint must be applied on moss-free areas.
9. Mark the trees on two opposite sides, approximately five feet above the ground, with enough bole-wrap so that the marks can be seen from all sides of the tree.
10. Each marked tree must be stump-marked at the base of the stump between the roots and extending all the way to the ground.