



TIMBER SALE PRESCRIPTION

GENERAL

Date 9/17/2012	Forest, Mineral and Fire Management Unit Roscommon
Timber Sale Number (if applicable) 71-002-13-01	Sale Name (or prescription name) Pine Road Red Pine

LOCAL CONTACT

Name Dale Ekdom	Telephone (989) 275 - 4622 x2741
Email Address ekdomd@michigan.gov	FAX (989) 275 - 6203

Map of Project Area Attached

LEGAL DESCRIPTION

T24N R01W Section(s) 27, 28, 33 Description Various

Year of Entry: 2013 Compartment(s):46 Stand Number(s): 40, 41, 55, 60

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
40	R9	39	171-200	Low Thinning	Red Pine Logs/Poles
41	R9	38	171-200	Low Thinning	Red Pine Logs/Poles
55	R9	16	141-170	Low Thinning	Red Pine Logs/Poles
60	R9	32	171-200	Low Thinning	Red Pine Logs/Poles

PRESCRIPTION

1. All Stands - thin to reduce residual basal area to 120 SF/Acre.
2. Identify the best trees and thin around them, concentrate on removing defect such as crook, double trees, double tops, and suppressed trees first and then reduce the BA to the target BA. Save understory pine and oak where possible.
3. Stand #40 and 41 - in addition to the marked trees, all merchantable aspen and red maple will be removed via specification.

Access Via F-97 north of St. Helen (Old 76) to Pine Road and then west approx. 1 mile.

DNR PREPARATION WORK TO BE DONE PRIOR TO CONTRACT WORK	ESTIMATED DATE
Boundary Line & Acreage Determination	11/14/2012

CONTRACT WORK CAN BEGIN

Immediately Date: 12/01/2012

CONTRACT WORK MUST BE COMPLETED BY Date 3/31/2014

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	
Private boundary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Blue	<input type="checkbox"/> Other:
Sale boundary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Red	<input type="checkbox"/> Other:
Sale cutting unit	<input type="checkbox"/>	<input type="checkbox"/>	<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	<input type="checkbox"/> GPS <input type="checkbox"/> String Chain <input type="checkbox"/> Other	
Payment Unit	<input 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:

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 East/West or North/South

CRUISING UNITS	NUMBER OF PLOTS PER ACRE	SPACING (CHAINS)
Stand 40	39 plots total	3 X 3
Stand 41	38 plots total	3 X 3
Stand 55	16 plots total	3 X 3
Stand 61	32 plots total	3 X 3
TOTAL NUMBER OF CRUISE POINTS	125	

Cruise Special Instructions:

In all stands, cruise all orange marked trees by species. In Stands #40 and 41, cruise all merchantable aspen and red maple. Cruise sawtimber and pulpwood using the V-Bar Cruise Method. Record residual basal area for each plot for all stands. GPS ESRI shape files may be available for setting up cruising with a Nomad GPS unit.

Refer to contract and attached Appendix 1 for detailed cruise instructions.

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): 120 (Minimum 110 to Maximum 130)

TREATMENT		NUMBER	SIZE
Regeneration Gaps Per Acre		N/A	N/A
Girdled Trees Per Acre		N/A	N/A
PRODUCT	MARKING SYMBOL	MINIMUM DBH	TOP DIB
Sawlogs	slash	10 "	8 "
Sawbolts			
Pulpwood	slash	4.6 "	4 "

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

TALLY INTENSITIES	
SPECIES / PRODUCT	RATIO
	1 :
	1 :
	1 :
	1 :

SPECIAL MARKING INSTRUCTIONS

Paint marks must be dark enough to last for a three year contract. Stump marks must extend from the tree onto the ground (approx. 2/3 tree & 1/3 ground) and Paint marks must be able to be seen from at least three sides of the tree. Do not thin multi-stemmed trees - cut all stems or leave all stems in multi-stemmed trees.

Gallon or quart paint can be provided but contractor must specify preference with plenty of lead time to make sure desired paint is available.

Refer to contract and attached Appendix 1 for detailed marking instructions.

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 Dale Ekdom at (989) 275 - 4622, 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.
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.

Pine Road Red Pine Contract APPENDIX 1, TIMBER SALE PRESCRIPTION

When Registered Corners or Witness Trees are discovered:

- Bearing and/or witness trees discovered during the course of sale preparation must be protected. This can be accomplished by painting a ring completely around the tree at 4-6 feet above ground level with either red paint. In addition, tying ribbon on these trees helps alert loggers to their presence. Do not mark any trees for harvest if cutting them is likely to result in damage to corner monuments and/or bearing trees.

When Cruising:

- Contractor must follow the cruising guidelines in the Michigan DNR's "Product Standards and Cruising Manual"
- Data must be recorded so volume can be determined by stand.
- Cruise all marked units using the V-Bar Cruise Method.
- Cruise all ash and beech trees along with all marked trees to cut by species that will yield one or more 100" sticks with a minimum top diameter of four (4) inches DIB for pulpwood and eight (8) inches DIB for sawlogs.
- Limiting distance for borderline trees should be measured for all trees designated to be cut.
- Within all marked stands, residual basal area (merchantable sized trees) at each plot must also be recorded on the cruise sheets.
- Plot centers must be marked according to contract specifications and correspond to a legible 1:15840 scale cruise map. Cruise specifications may be altered as necessary by the LCA.
- Plot locations must be submitted in a .shp or .way file format
- Cruise data must be submitted in a TSale compatible electronic format (microsoft excel, or a .crl file created by a program such as TSale or T-Cruise, or other electronic format approved by the LCA)
- If data is collected on paper then entered electronically, a copy of the original cruise sheets must also be submitted.

When marking prioritize selection of trees to be cut in the following order:

1. Marking must comply with The Compleat Marker, The Complete Marker Addendum, and Within Stand Retention Guidelines (IC4110.)
2. Of the residual trees in the marked stands retain the following when possible:
 - Under-represented species.
 - Mast trees - at least 3 trees/acre when available.
 - Leave all super-canopy trees or "Legacy Trees" – remnants of the historical stands.
 - Live cavity trees and snags.
3. Mark all stems including non-merchantable stems within the regeneration gaps.
4. Release 50 potential crop trees per acre.
 - Manage for best tree in place.
 - For trees less than 8" DBH, release all sides of the crown. For trees greater than 8" DBH remove the two most significant crown competitors. (Refer to The Compleat Marker for crop tree specifications.)
 - Be certain that marked trees can be felled using modern logging equipment.
5. Remove high risk and cull trees.
6. Thin from below until stocking is reached.
7. All marking must be done in dry weather and on dry bark surfaces.
8. Stump marks are required, winter marking is allowed providing snow depths are low enough to achieve proper stump marks. Check with the LCA if winter work is possible.

Reserved Species: Do not mark within 100' of any raptor nest trees. Report these to the LCA as soon as possible and directions will be given at that time.