



TIMBER SALE PRESCRIPTION

GENERAL

Date 12/5/2012	Forest Resources Division Management Unit Traverse City
Timber Sale Number (if applicable) 61-013-13-01	Sale Name (or prescription name) C56 Red Pine & Oak

LOCAL CONTACT

Name Patrick Cotant	Telephone (231) 922 – 5280 x6844
Email Address cotantp@michigan.gov	FAX (231) 922 - 1853

Map of Project Area Attached

LEGAL DESCRIPTION

T25N R9W Section(s) 22 Description See Map

Year of Entry: 2013 Compartment(s):56 Stand Number(s): 90 & 92

THIS TIMBER SALE CONTRACT IS BASED ON THE FOLLOWING ACREAGE

Estimated Acres: 77 Source: OI GPS Other IFMAP Inventory

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

TREATMENT & OBJECTIVE

STAND #	COVER TYPE	ACRES	BA	TREATMENT	MANAGEMENT OBJECTIVE
90	R9	68	141-170	Thinning	Red Pine
92	O9	11	51-80	Clearcut	Mixed Oak

PRESCRIPTION

Prescription for stand 90:

1. Mark to thin red pine focusing on removing suppressed, defected or poorly formed trees.
2. Remove some large diameter sawlog trees (>14") along with some utility poles for spacing.
3. Target residual BA should be approximately 120 square ft/ac.
4. Create 6-7 small regeneration holes w/in stand by removing scattered poor quality pin oak.

Prescription for stand 92:

1. Retain approximately 10 BA of a combination of white pine and white oak.
2. Retain white pine in the 5-8" size class.
3. Retain higher quality, larger diameter white oak.
4. Retention should be slightly higher (~20 BA) along cycle trail which passes through sale area.

Access Refer to map for access routes.

DNR PREPARATION WORK TO BE DONE PRIOR TO CONTRACT WORK	ESTIMATED DATE
Boundary Line work has been completed.	12/05/2012

CONTRACT WORK CAN BEGIN

Immediately Date:

CONTRACT WORK MUST BE COMPLETED BY Date: 07/30/2013

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

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: E / W

CRUISING UNITS	NUMBER OF PLOTS PER ACRE	SPACING (CHAINS)
stand 90	.8	3.5 X 3.5
stand 92	1	3 X 3
		X
		X
TOTAL NUMBER OF CRUISE POINTS		

Cruise Special Instructions:

Cruise all pulpwood to a 4.0" top (DIB).

See Appendix 1 for cruising details. The V-Bar cruising method will be required on this contract.

Unless otherwise specified, the tally sheets used must be those supplied by the Forest Resources Division 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: Girdled Trees Per Acre:	1 every 10 acres	
PRODUCT	MARKING SYMBOL	MINIMUM DBH
Sawlogs	Slash w/ dots	9.1"
Sawbolts		
Pulpwood	Slash	4.6"

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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Orange <input type="checkbox"/> Other

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

SPECIAL MARKING INSTRUCTIONS:

Mark to cut red pine and oak species with orange slashes on both sides of the tree and stump marks. Stump marks should extend from above average stump height into the dirt at the base of the tree. All sawlogs should be dot marked and tallied. Residual Following harvest should average approximately 120 sq ft/ac following harvest with some variability within areas where regeneration holes are placed. Regeneration holes within stand 90 should be scattered throughout stand. Mark to cut poor quality pin oak to create these gaps while also marking a few red pine around the perimeter of the gaps. White pine and white oak marked to leave within stand 92 should be marked with green paint. Overall residual BA within this stand should not be greater than 10 sq ft/ac. It is acceptable for residual to range from ~10-20 BA along cycle trail. See Appendix 1 for further details on marking and cruising.

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

RESTRICTIONS

1. Forest Resources 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 Patrick at (231) 922 - 5280 x6844, to make arrangements for paint.
2. Paint will be supplied from Traverse City.
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.

APPENDIX 1

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. Borderline residual trees do not have to be measured, but every other borderline tree should be counted.
- 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.