



TIMBER SALE PRESCRIPTION

GENERAL

Date 7/17/2008	Forest, Mineral and Fire Management Unit Crystal Falls
Timber Sale Number (if applicable)	Sale Name (or prescription name) C75 Contract

LOCAL CONTACT

Name Cynthia Cooper	Telephone (906) 875 - 6622
Email Address cooperck@michigan.gov	FAX (906) 875 - 3336

Map of Project Area Attached

LEGAL DESCRIPTION

T41N R30W Section(s) 16, 17, 20, 21 Description see map

Year of Entry: 2009 Compartment(s):75 Stand Number(s): 4, 5, 6, 32

THIS TIMBER SALE CONTRACT IS BASED ON THE FOLLOWING ACREAGE

Estimated Acres: 229 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
4	M6	44	130	Selection	Northern Hardwoods
5	M6	67	160	Selection	Northern Hardwoods
6	M6	104	180	Selection	Northern Hardwoods
32	M6	14	140	Selection	Northern Hardwoods

PRESCRIPTION

1. Mark to reduce basal area to an average of 80 sq.ft. by removing poor quality stems competing with crop trees.
2. Special attention will be given to removal of trees with cankers, cracks and V shaped forks.
3. Do not mark conifers, black cherry, oak, black ash or aspen.
4. Minor species and obvious den trees will be favored for retention.
5. Stand boundary lines will be marked with red paint dots facing into the sale area.
6. Stands 4, 5, and 6 will be divided into units as specified by the administrator.
7. Property lines against private will be marked using blue paint dots facing both into and opposite of the stand boundaries.
8. All lines will be completed before marking is to begin.
- 9.

Access

DNR PREPARATION WORK TO BE DONE PRIOR TO CONTRACT WORK	ESTIMATED DATE
All survey work.	August 2008

CONTRACT WORK CAN BEGIN

Immediately Date: 10/1/2008

CONTRACT WORK MUST BE COMPLETED BY Date 8/15/2009

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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/> Yellow	<input checked="" type="checkbox"/> Other: Red
Stand type line	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Red	<input type="checkbox"/> Other:

Exclusions to mark and why

Low areas of predominantly black ash will be excluded from the sale area by painting with red paint. These areas must be GPS'ed, the acreage and location on a map must be provided to DNR.

Standards for marking lines against private land

All lines will be ribboned as well as painted with blue paint. Paint marks are to face both inside and opposite the stand boundaries.

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

Special Instructions:

Provide corrected GPS files compatible with ArcView software.

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 Cardinal

CRUISING UNITS	NUMBER OF PLOTS PER ACRE	SPACING (CHAINS)
All	1	3X3
		X
		X
		X
TOTAL NUMBER OF CRUISE POINTS		

Cruise Special Instructions:

1. Sawlog tally sheets with large pulp sticks, provided by the DNR, MUST be used for tallying 100% of the sawlogs marked.
2. Each unit must be cruised separately. A summary must be provided for each unit (pulp and sawlogs).
3. Each plot center will be flagged with the unit number and plot number (i.e. U-5, #10). Locator flags may be necessary if the plot center is very close to the ground.
4. Cruise species for pulp are basswood, mixed hardwood and mixed aspen.

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): 80 (Minimum 70 to Maximum 90)

TREATMENT		NUMBER	SIZE
Regeneration Gaps Per Acre		0	
Girdled Trees Per Acre		0	
PRODUCT	MARKING SYMBOL	MINIMUM DBH	TOP DIB
Sawlogs	Slash w/dots for logs	12	10
Sawbolts			
Pulpwood	slash	5	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
Sugar maple logs	1 : 1
Basswood logs	1 : 1
Mixed hardwood logs	1 : 1
	1 :

SPECIAL MARKING INSTRUCTIONS

1. Conifers, black cherry, oak, black ash, and aspen are not to be marked.
2. Sawlogs will be marked with a double slash on one side and a single slash with one dot per log on the opposite side. Pulp trees will be marked with a single slash on opposite sides. All trees will have adequate stump marks.
3. Do not mark blue painted bearing trees or private property line trees. Do not mark red stand boundary line trees. Unit line trees may be marked for cut.

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 Cynthia Cooper at (906) 875 - 6622, to make arrangements for paint.
2. Paint will be supplied from the Crystal Falls 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.

C-75 Contract TIMBER SALE PRESCRIPTION APPENDIX

When establishing paint lines:

- The attached type map delineates the contract marking area.
- Avoid using dead or badly damaged trees - boundary trees must last for the duration of the timber sale (up to 3-4 years).
- Favor the use of reserved species such as cedar or oak.
- Avoid using small (fast-growing) stems and those exposed to direct sunlight.
- Marking must be done in dry weather and when tree surfaces are not wet.
- 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). 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.
- Place marks approximately six feet above the base of the tree.
- The contractor will keep track of total quarts of paint used per-sale by color.
- 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.
- GPS units used must be compatible with Pathfinder Office (2.01 or later) and capable of producing a Trimble .COR file format. Supply a disk of the traverse file along with a hard copy of the corrected traverse file.
- Position Mode must be set so that GPS receiver collects data from a minimum of four satellites. This must be recorded in the position properties window after downloading.
- Positions deliver ODS (over determine system) data. 2D position will not be acceptable.
- The GPS receiver must log PDOP. This log must be recorded in the position properties window after downloading.
- PDOP mask must be less than or equal to 8.
- SNR setting must be less than or equal to 4.
- Sale boundaries are to be recorded as an area feature, not a line.
- Payment Unit lines may be recorded as a line feature bisecting the sale.

When Registered Corners or Witness Trees are discovered:

- Any wooden posts encountered at corners must also be painted/protected.
- 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 (corner surrounded by state lands) or blue paint (corner on private property boundary line). 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.
- Please report the condition of all corners, posts and bearing trees to the LCA.

When Cruising:

- Data must be recorded so volume can be determined by stand. If a stand is split into 2 or more payment units, each unit must be recorded separately. In addition, all data must be summarized by species or species grouping by payment unit.
- All saw logs must be 100% tallied by species and diameter.
- Within all marked stands, cruise all marked pulpwood tree species that will yield one or more 100" pulpwood sticks with a minimum top diameter of four (4) inches DIB. Contact LCA to see what grouping of pulpwood is acceptable.
- Within all marked stands, residual basal area (merchantable sized trees by species) 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.

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

1. Release suitable crop trees. (Refer to The Complete Marker for crop tree specifications.)
2. When appropriate, try to increase the number of lesser occurring species such as beech in areas of high bear use. LCA can provide an explanation of this priority.
3. Remove high-risk, poor quality and trees with poor crowns.
4. Maintain target basal area.
5. Maintain all species diversity.

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.
- Marking of infrequently occurring species should be avoided. Consult the LCA for clarification.