



TIMBER SALE PRESCRIPTION

| GENERAL | |
|------------------------------------|--|
| Date 9/1/11 | Forest, Mineral and Fire Management Unit Newberry |
| Timber Sale Number (if applicable) | Sale Name (or prescription name) |

| LOCAL CONTACT | |
|--|-------------------------------------|
| Name Keith Magnusson | Telephone (906) 293 - 3293 x4745 |
| Email Address magnussonk@michigan.gov | FAX (906) 293 - 8530 |

Map of Project Area Attached

| LEGAL DESCRIPTION |
|---|
| T45N R10W Section(s) 35 & 36 Description See Cover Type Map |

Year of Entry: 2012 Compartment(s):123 Stand Number(s): 33, 37, 40, 42, 43, 46 & 52

THIS TIMBER SALE CONTRACT IS BASED ON THE FOLLOWING ACREAGE

Estimated Acres: 206 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 |
| 33 | M6 | 8 | 120 | Final Harvest | Planted Red Pine |
| 37 | M6 | 10 | 120 | C/C w/reserves | Northern Hardwoods |
| 40 | F6 | 4 | 100 | C/C w/reserves | White Pine |
| 42 | R6 | 21 | 180 | Row Thinning | Planted Red Pine |
| 43 | M6 | 8 | 120 | C/C w/reserves | Northern Hardwoods |
| 46 | M9 | 136 | 140 | Selection | Northern Hardwoods |
| 52 | A9 | 19 | 100 | Final Harvest | Aspen |

| PRESCRIPTION |
|--|
| <ol style="list-style-type: none"> Stands 42 & 46 need to be marked for cutting. The type of marking varies in each stand. (See timber marking section below for more detailed marking specs). Mark all stands to improve maneuverability within the stand for logging operations to occur. Cruise stands 33, 37, 40, 43 and 52. (See timber cruising section for more detailed specs) Stands 52 will need to have a retention area left within stand area (See paint line specs). If stick nests are found leave a minimum 1 chain unmarked buffer around the nest tree and contact the Newberry field office for additional requirements. |

Access Work area is located just southeast of the Newberry. Work area can be accessed by vehicle via decent dirt roads and various two tracks. See attached maps.

| DNR PREPARATION WORK TO BE DONE PRIOR TO CONTRACT WORK | ESTIMATED DATE |
|--|----------------|
| Survey corners near private land in Sec. 36 will be established. | 10/01/2011 |
| | |

CONTRACT WORK CAN BEGIN

Immediately Date: _____

CONTRACT WORK MUST BE COMPLETED BY Date 09/01/2012

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: Green |
| Stand type line | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Other: |

Exclusions to mark and why

In stand 52, a retention area will need to be designated and boundaries of this area painted. This retention areas should be approx. 5% of the total stand area. Incorporate some mature aspen, maple, spruce and fir into the retention area. This will be discussed at the pre-work meeting.

Standards for marking lines against private land

Must be within a minimum of 10 feet of actual property line.

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 | 2 meters |
| Payment Unit | <input checked="" type="checkbox"/> GPS <input type="checkbox"/> String Chain <input type="checkbox"/> Other | 2 meters |
| Stand | <input type="checkbox"/> GPS <input type="checkbox"/> String Chain <input type="checkbox"/> Other | |

Special Instructions:

Contractor must supply their own GPS Units that are capable of downloading information to a computer.

TIMBER CRUISING SPECIFICATIONS This is included in the bid This is not included in the bidRequired Basal Area Factor: 10 20 Other:**Cruise Line Directions**

| CRUISING UNITS | NUMBER OF PLOTS PER ACRE | SPACING (CHAINS) |
|--------------------------------------|--------------------------|------------------|
| Stands 33, 37, 40, 43 and 52 | 1 | ~3 X 3 |
| | | X |
| | | X |
| | | X |
| TOTAL NUMBER OF CRUISE POINTS | | |

Cruise Special Instructions:

- Cruise stands by species and products per DNR standards. Record only B.A. of trees being reserved.
- In Stands 33, 37 and 43 cruise all beech present. All other species are being retained unless additional marking is needed to improve logging operability.
- In Stands 40 and 52 cruise all aspen, maple, cherry, paper birch, spruce and balsam. Cruise aspen, cherry, spruce and balsam as pulpwood only, no need to determine sawlogs in these species. White pine may need to be marked in these stands as well to improve logging operability.
- Exact plot center will be marked by placing a stick in the ground, flagged with ribbon marked with the corresponding plot number.
- These items will be discussed at the pre-work meeting.

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 | | | |
| Girdled Trees Per Acre | | | |
| PRODUCT | MARKING SYMBOL | MINIMUM DBH | TOP DIB |
| Sawlogs | "X" with dots | 12" | 10" |
| Sawbolts | | | |
| Pulpwood | slash | 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 |
| Mixed species of sawlog quality | 1 : 1 |
| Mixed species of pulpwood quality | 1 : 20 |
| | 1 : |
| | 1 : |

SPECIAL MARKING INSTRUCTIONS

- Two sided marking on all marked trees, including any aspen/fir/spruce that is to be cut.
- Dots will be painted on the pulp tally trees so they can be checked.
- Mark all sawlog trees with an "X" with dots to correspond with the number of sawlogs tallied.
- In Stand 46, maintain stand diversity by leaving some beech, yellow birch, paper birch and black cherry. Leave all hemlock, cedar, spruce and white pine. Leave the best tree in place.
- In stand 42, Third row thin the red pine. The rows may be difficult to distinguish and follow in certain areas. All species need to be marked within selected rows. Mark with logging operability/maneuverability in mind.
- Stands 33, 37, 40, 43 & 52 may need to be lightly marked to improve logging maneuverability.
- Above marking items will be discussed at pre-work meeting.

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 Keith Magnusson at (906) 293 - 3293 x4745, to make arrangements for paint.
2. Paint will be supplied from the Newberry 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.