

TIMBER SALE MAP



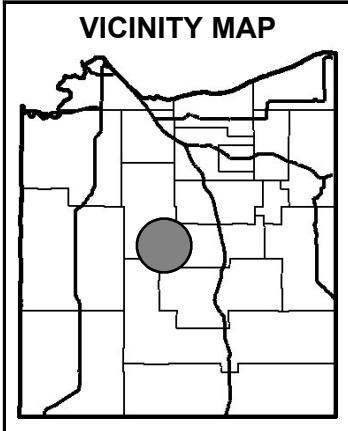
Douglas County Forestry Department
 9182 East Hughes Avenue
 P.O. Box 211
 Solon Springs, WI 54873
 Phone (715) 378-2219, Fax (715) 378-2807

TRACT NUMBER: **35-19**

SALE NUMBER:

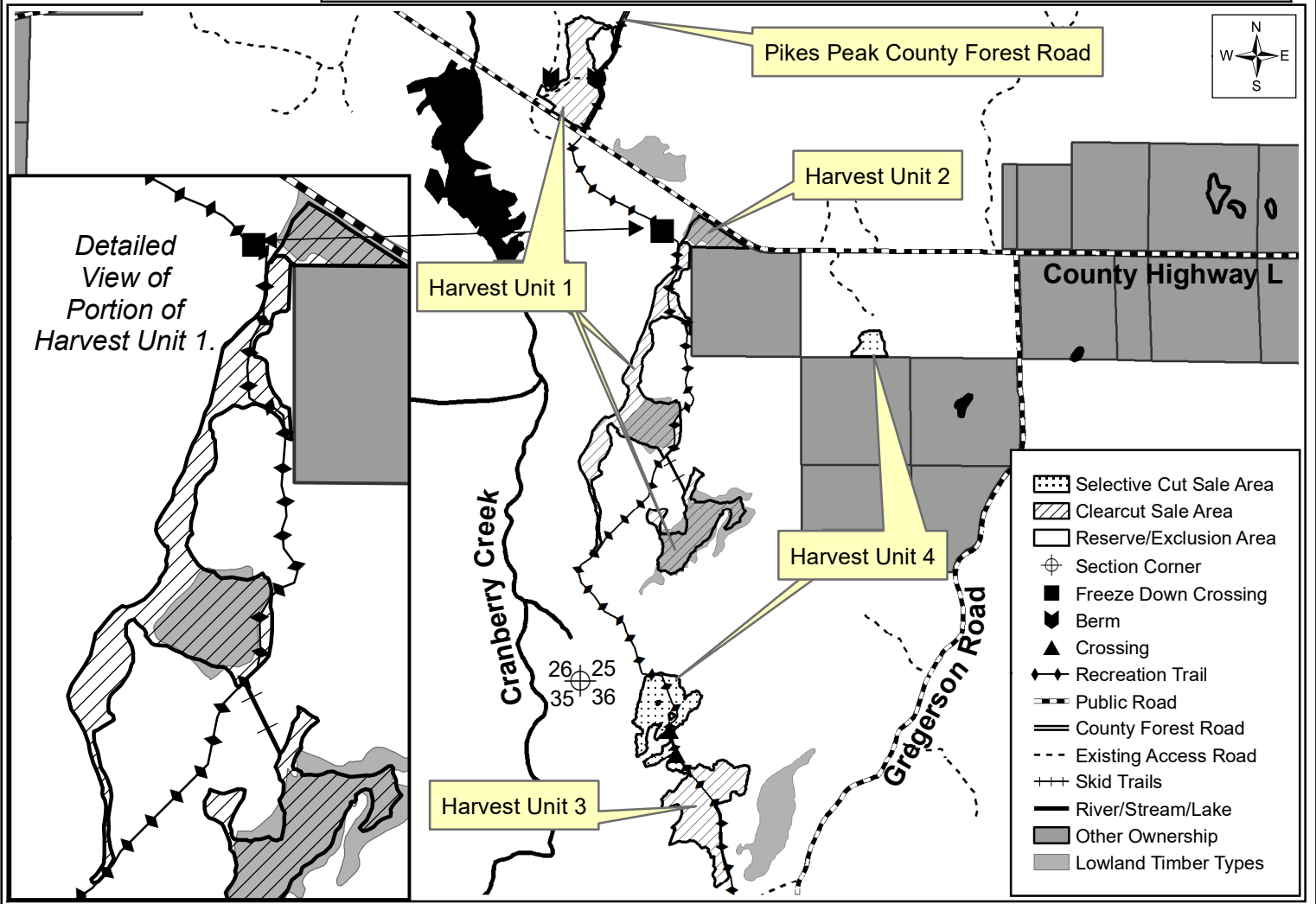
Prepared By: Justin Holmes Legal: Sec 23, 24, 25, & 36 T46N - R13W
 Sale Name: Chaga Tee Town: Oakland Topography: Sloping Hills
 Scale Method: Ticket Scale Acres: 77 Harvest Units: 4 Soils: Loamy Sand
 Contract Period: 2 Years Map Scale: 3" = 1 mile Season: Seasonal (see reverse)

-- See the Douglas County Timber Sale Contract and reverse side for terms and conditions. --



SPECIES, PRICE & ESTIMATED VOLUME INFORMATION				
SPECIES	4" ROUNDWOOD (CORDS)	WHOLE-TREE (CORDS)	SAWLOGS (MBF)	MINIMUM TOTAL SPECIES PRICE
Mixed HW	825	1,240	XXX	\$8,308.00
Tamarack	450	730	XXX	\$1,971.00
Red Pine	200	XXX	XXX	\$3,340.00
TOTALS	1,475	(2,170)	XXX	\$13,619.00

The Mixed HW volume contains approximately 47% White Birch, 35% Aspen, 9% Black Ash, 5% Sugar Maple, 3% Red Maple, and 1% Misc. The Tamarack volume contains approximately 61% Tamarack, 21% Black Spruce, and 18% Balsam Fir.



TRACT 35-19 (CHAGA TEE) – SUPPLEMENTAL REQUIREMENTS

The following terms and conditions supplement those provided in the Douglas County Timber Sale Contract:

A. PRESCRIPTION -

- Harvest unit 1 has a seed tree harvest prescription with an estimated average residual basal area of 9ft².
- Harvest unit 2 has a clear-cut with reserves harvest prescription with an estimated average residual basal area of 20ft².
- Harvest unit 3 has a clear-cut harvest prescription with an estimated average residual basal area of 1ft².
- Harvest unit 4 has a 3rd entry improvement thinning harvest prescription with an estimated average residual basal area of 118ft².

B. SEASONAL RESTRICTIONS -

- All harvesting operations are not restricted by season or time of the year on an estimated 50% of the harvest area (uplands) and shall be limited to frozen ground conditions or unusually dry conditions only on an estimated 50% of the harvest area (lowlands). Contact the Sale Administrator for further information.

C. TREES DESIGNATED FOR CUTTING -

- In harvest unit 1, fell, skid, and haul all white birch, aspen, red maple, sugar maple, balsam fir, black ash, tamarack, black spruce, and miscellaneous species stems that meet the product and utilization standards as per product bid.
- In harvest unit 2, fell, skid, and haul all black ash species stems that meet the product and utilization standards as per product bid.
- In harvest unit 3, fell all aspen, red maple, sugar maple, and miscellaneous species stems; and all balsam fir stems that contain at a minimum, one 4" Roundwood Product. Skid and haul all felled stems that meet the product and utilization standards as per product bid.
- In harvest unit 4, fell all orange marked red pine stems. Skid and haul all felled stems that meet the product and utilization standards as per product bid.

D. TREES DESIGNATED FOR LEAVING -

- In harvest unit 1, reserve and leave undamaged all yellow birch, red pine, red oak, and green marked stems.
- In harvest unit 2, reserve and leave undamaged all balsam fir, white birch, red maple, yellow birch, white pine, and tamarack stems.
- In harvest unit 3, reserve and leave undamaged all white pine and white birch stems; and all balsam fir stems that do not contain at a minimum, one 4" Roundwood Product.
- In harvest unit 4, reserve and leave undamaged all non-marked red pine stems.

E. HARVEST AND OPERATIONAL REQUIREMENTS -

- "Slashing Maintenance" is required for all hardwood stems in harvest units 1, 2, and 3.
- In harvest unit 4, all harvesting operations shall be limited to short-wood/cut-to-length processing and forwarding operations only. Sheared stems shall be limbed, topped, and processed at the stump prior to product forwarding.
- In harvest units 1 and 3 the sale administrator will layout a skid trail plan at the time of the pre-operations meeting. All equipment operation and skidding shall be limited to this layout.
- Up to five landing locations shall be identified during the pre-operations meeting.

F. ACCESS AND ROADS -

- No new access roads shall be constructed.
- Portions of the access road are gated.
- Portions of the access road is blocked with an "Earth Berm". Berm removal is recommended during non-frozen ground conditions.
- The total length of the existing access road system is approximately 14,470 feet. Portions may require minimal "Class 3" reconstruction before use.
- Two permanent "Culvert Crossings" shall be constructed. Please see contract attachment.
- One "Freeze Down Crossing" shall be constructed as designated.
- The access road utilizes a significant portion of a winter snowmobile trail.
- Two "Earth Berms" are located on the access road and shall be reinstalled at the same designated locations.
- Pikes Peak Road is a County Forest Road, winter snowmobile trail, and summer ATV/UTV trail. No decking of products is permitted on or along this road.

G. OTHER -

- The Red Pine cord volume contains a percentage of bolt and sawlog size material. 13 inch average stem diameter.

DOUGLAS COUNTY – TIMBER SALE CONTRACT
CONTRACT ATTACHMENT “C”

Tract 35-19 Culvert Crossing Construction

The Purchaser shall construct and install **TWO** permanent culvert crossings. If not identified in the field by the word “XING” painted in pink paint at each specific location, the Sale Administrator shall determine and approve exact locations prior to any construction activities by the Purchaser.

CULVERT CROSSING - The following specifications apply to all culvert crossing construction designated under this Contract. All culverts will be constructed of 16-gauge corrugated steel pipe, be no less than 18-inches in diameter, be no less than 30-feet in length, and shall be installed by the Purchaser as follows:

- (1) All culverts and geotextile fabric will be furnished by the County. The Purchaser shall notify the Sale Administrator no less than five (5) calendar days in advance of requested date of availability. The County will make the materials available at the Douglas County Forestry Department Field Shop located at 9257 East County Highway “M”, Gordon, WI 54838 on scheduled business days between the hours of 8:00 AM and 4:30 PM. All loading and transportation of materials shall be the sole responsibility of the Purchaser.
- (2) The Purchaser shall contact the Sale Administrator **two (2)** calendar days in advance of culvert installation.
- (3) The crossing shall be no less than **20-feet** in width and not exceed **25-feet** in width. Purchaser is encouraged to use a backhoe or excavator to install all culvert crossings.
- (4) Excavation and blade work shall be restricted to only the specific length and width area of the crossing. No laterally adjacent areas outside of the crossing shall be disturbed by the Purchaser’s operations.
- (5) The excavation trench for culvert installation shall be no wider than necessary to permit satisfactory jointing and thorough tamping of the bedding material under and around the culvert.
- (6) The bedding surface shall be constructed to provide a firm foundation of uniform density through the entire length of the culvert and shall be slightly raised along the centerline to correct for expected settlement.
- (7) A first layer of geotextile fabric shall be placed over the excavation trench and bedding material to add stability and prevent fill material from mixing with the bedding material (see Figure 4). The geotextile fabric shall extend no less than 15 feet beyond the lowland area on each side of the crossing and shall be secured into the adjacent upland fill material.
- (8) Culvert elevation shall be sufficient to cause no change in substrate level elevation of the drainage. All pooling and damming on the inlets and outlets caused by improper installation elevation shall be avoided (see Figure 1). Inlet and outlet of culvert shall be embedded at a depth of 1/6th the vertical diameter height of the culvert assuring there is no change in drain elevation.
- (9) Where the bedding surface is not firm at the grade established, all unstable soil under the culvert and for a width of at least one diameter on each side of the culvert shall be removed and replaced with suitable selected material. Naturally occurring rock encountered in the bedding foundation will be removed to at least 12-inches below the bottom of the culvert and one diameter on each side. The final bedding area shall consist of fine, compacted granular material.
- (10) Selected material shall be placed alongside the culvert for backfill in alternating layers not exceeding 6-inches in depth and thoroughly compacted between layer additions. Special care must be taken to compact the fill thoroughly under the haunches (bottom sides) of the culvert. Compaction of backfill shall be done for a horizontal distance on each side of the culvert equal to either one culvert diameter or to the outside limits of the trench, whichever is less (see Figure 4). The depth of compaction must extend at least to the top of the culvert. Fill shall not extend beyond the inlet and outlet of the culvert and a minimum of 18-inches of the top of the culvert shall be exposed and visible upon completion to facilitate armoring with riprap.
- (11) Selected native fill material requires approval from the Sale Administrator prior to use and shall be free from rocks, sod, organic matter, woody debris and hard earth clods larger than 3-inches in size. Frozen material, snow or ice is not permitted in fill.
- (12) A second layer of geotextile fabric shall be placed over the culvert and backfill material to add further stability and prevent road surface gravel from mixing with the backfill material (see Figure 4). The geotextile fabric shall extend no less than 15 feet beyond the lowland area on each side of the crossing and shall be secured into the adjacent upland fill material.
- (13) The road surface shall consist of compacted 1/4-inch minus binding gravel fill at a depth of no less than 8-inches. Total fill column (including road surface) is to extend above the culvert at a minimum of 18-inches (compacted).
- (14) Any culvert and/or component that is damaged or improperly installed by the Purchaser shall be repaired or replaced at the Purchaser’s expense as directed by the Sale Administrator.

- (15) Riprap consisting of angular native rock of graded sizes 6 to 12-inches in diameter shall be installed to armor the inlet and outlet of all culverts as directed by the Sale Administrator (see Figures 2 & 3).
- (16) Upon completion of the installation, the road profile shall maintain a 2:1 slope.

Culvert Crossing Figures

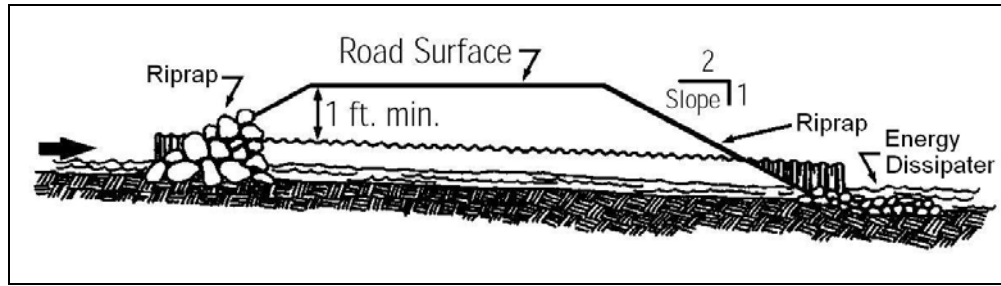


Figure 1: Installation of culverts.

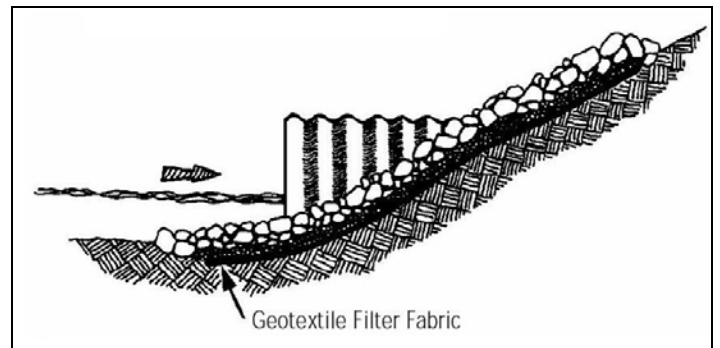
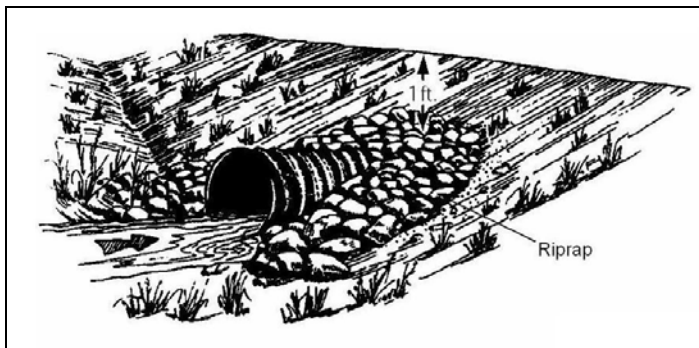


Figure 2 & 3: Placement of riprap and geotextile filter fabric to armor culvert inlets and outlets.

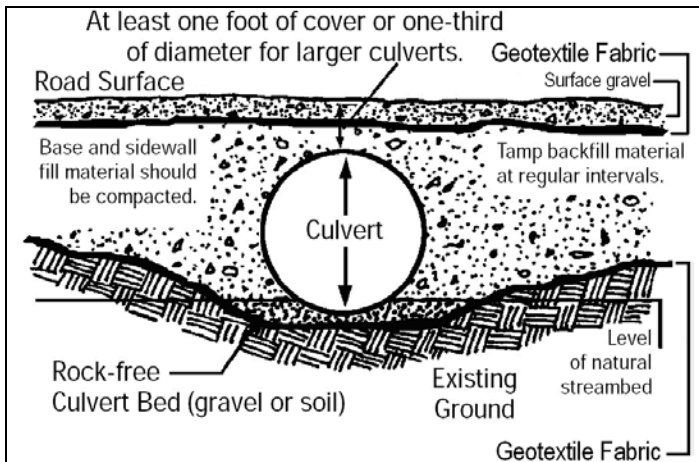


Figure 4: Culvert cross-section.