

STATEMENT OF WORK

Construction of Timber Sale Haul Roads

Bureau of Forestry
Rothrock State Forest (Forest District #5)
(Huntingdon County, Pennsylvania)

A. SCOPE OF WORK:

The Commonwealth of Pennsylvania, Department of Conservation and Natural Resources (DCNR), Bureau of Forestry, Rothrock State Forest, requires the services of a contractor to complete the construction of two (2) secondary timber sale haul roads, including, but not limited to, installation of gates, culverts, geotextile materials, and retirement of all disturbed areas, located in Huntingdon County, Pennsylvania. (This work is needed as a result of Timber Sale (FMT-7) 05-2005BC03 Stone Creek Blowdown.)

Shale is available at no cost on the State Forest Land. Contractor will have to excavate and deliver shale to the construction site. Distance to shale pit from construction site is approximately one-half mile.

Contractor is required to provide all materials necessary for this project, and costs must be included in the bid price.

Any questions concerning the technical aspects of this bid should be directed to Mark Long at 814-643-2340, or through e-mail at marklong@state.pa.us. Complete contact information for Mark Long is listed below:

Department of Conservation and Natural Resources
Bureau of Forestry
Rothrock State Forest, Forest District 5
181 Rothrock Lane
Huntingdon, PA 16652
Phone: 814-643-2340
Fax: 814-643-6304
Email: marklong@state.pa.us

Questions regarding the bidding or contracting procedures should be directed to Nancy Weibley at 717-783-4884, or through e-mail at nweibley@state.pa.us.

B. CONTRACT TASKS:

This project includes the construction of two (2) haul roads, which together total 0.42 miles. (Forestry estimates a total of 2 acres of government-owned land in the Rothrock State Forest.) Vegetation has been cleared from the roads; however grading, culvert, gate, and geotextile installation have not been completed. Shale is available from the State Forest Land at no cost but must be excavated and delivered by the operator. In addition to haul road construction, all disturbed areas (i.e. roads and landings) require retirement, including lime, fertilizer, and seed.

DAMAGE TO COMMONWEALTH PROPERTY – The contractor shall be responsible for any damage to Commonwealth property resulting from the improper use of equipment for this road project. The contractor will be given one (1) written warning that damage is becoming excessive and if the action continues damages will be assessed.

- a. **Timber Damages** – When, in the opinion of the a Bureau of Forestry representative, damage to the residual stand becomes excessive, the contractor shall pay the Commonwealth a fair base current value determined by the representative per unit of volume. If this value for damage due to contractor's carelessness or negligence is less than \$25.00 per tree, then a minimum charge of \$25.00 per tree will be made whether the tree is commercial, non-commercial, merchantable or non-merchantable.
- b. **State Forest Facilities** – Contractor shall immediately repair, in a manner which meets with the approval of a Bureau of Forestry representative, any damage to State Forest roads and/or other facilities, including camp access roads and deer fences, resulting from the contractor's use for this road project, general wear and tear accepted. The Bureau representative may notify the contractor in writing to temporarily discontinue use of any of the above whenever, in their opinion, such action is necessary to prevent serious damage. No contract payment deduction will be assessed when operations are curtailed by the Bureau of Forestry.

HAUL ROAD CONSTRUCTION AND RETIREMENT

- **Haul Road I**

Haul Road I is located on the north side of Stone Creek Road (see map attached). This haul road is approximately 1,503 feet in length, and timber has been cleared from the right of way. Any stumps or logging debris remaining on the road right of way must be removed. Road should be graded, crowned and ditched with a 12' width running surface. Shale is to be applied at 9" depth. Approximately 501 cubic yards of shale are required for this haul road.

This road requires the installation of 1- 36"x 20' round metal culvert and 3-15" x 20' round metal culverts. The larger culvert may not be installed from October 1 to December 31 as per regulations. This culvert requires the placement of 750' of geotextile material at the approaches as well as 12 cubic yards of #1 Aashto limestone, and 12 cubic yards of Class B Gabian Stone. This culvert must rest 6" below the stream bottom and have 12" (minimum) of road material above its opening.

A metal gate built to Bureau of Forestry specifications is to be installed at the intersection with Stone Creek Road. Exact gate location will be specified, and gate must be primed and painted according to Forest District specifications. Eighteen cubic yards of 2RC Select Granular Limestone should be added at the intersection with Stone Creek Road, over the shale base.

All disturbed areas on the project must be retired. Retirement includes clearing of logging debris, installing upslope diversions or waterbars, and scarifying surface to create a seedbed. Logging debris must be spread out and not piled together. The following materials are to be applied: 2 tons pulverized limestone, 200 lbs. 10-20-20 fertilizer, 5 lbs.

Silky Wildrye, 15 lbs. white clover, 5 lbs. inoculated Norcen Birdsfoot Trefoil, and 5 lbs. annual ryegrass.

Materials List (to be purchased and delivered by contractor):

501 Cubic Yards Shale (available on the State Forest Land, excavated and delivered by contractor)

12 Cubic Yards #1 Aashto Limestone

18 Cubic Yards 2RC Select Granular Limestone

12 Cubic Yards Class B Gabian Stone

3- 15" x 20' round metal culverts

1- 36" x 20' round metal culvert

12.5' x 750' Non-Woven PennDOT Class 1 or Equivalent Geotextile Material

1-metal haul road gate (as specified in attachment)

4,000 lbs. Pulverized Limestone

200 lbs. 10-20-20 fertilizer

5 lbs. Silky Wildrye Grass

15 lbs. white clover

5 lbs. Inoculated Birdsfoot Trefoil (Empire)

5 lbs. annual ryegrass

- **Haul Road II**

Haul Road II is located on the southern side of Stone Creek Road, and is approximately 553 feet in length. Again, this road must be graded, crowned and ditched with any stumps or logging debris removed. Approximately 184 cubic yards of shale are required for this road, applied at 9" depth on a 12' running surface. A wooden pole gate built to specifications is to be installed near the intersection with Stone Creek Road, exact location to be specified. Eighteen cubic yards of 2RC Select Granular Limestone should be added at this intersection, over the shale base.

Culverts to be installed on this haul road include 2- 15"x 20' round metal culverts and 1- 36" x 20' round metal culvert. Installation and materials allotted for the larger culvert are identical to that on the other haulroad using #1 Aashto and Class B Gabian Stone, exception being that no geotextile is used here.

Again, all disturbed areas on the project must be retired. Retirement includes clearing of logging debris, installing upslope diversions or waterbars, and scarifying surface to create a seedbed. Logging debris must be spread out and not piled together. The following

materials are to be applied: 2 tons pulverized limestone, 200 lbs. 10-20-20 fertilizer, 5 lbs. Silky Wildrye, 15 lbs. white clover, 5 lbs. inoculated Norcen Birdsfoot Trefoil, and 5 lbs. annual ryegrass.

Materials List (to be purchased and delivered by contractor):

184 Cubic Yards Shale (available on the State Forest Land, excavated and delivered by contractor)

12 Cubic Yards #1 Aashto Limestone

18 Cubic Yards 2RC Select Granular Limestone

12 Cubic Yards Class B Gabian Stone

2- 15" x 20' round metal culverts

1- 36" x 20' round metal culvert

1-wooden pole gate (as specified in attachment)

4,000 lbs. Pulverized Limestone

200 lbs. 10-20-20 fertilizer

5 lbs. Silky Wildrye Grass

15 lbs. white clover

5 lbs. Inoculated Birdsfoot Trefoil (Empire)

5 lbs. annual ryegrass

C. MANDATORY SITE INSPECTION

All contractors interested in submitting a bid must attend a **MANDATORY** tour of the project area scheduled for Friday, September 23, 2011, at 9:00 a.m. Contractors will meet at 9:00 a.m. at the Greenwood Division State Forest Maintenance Headquarters located at the Intersection of Rt. 305 and Rag Hollow Road. (Contact the Forest District Office at 814-643-2340 for specific directions.)

D. CONTRACT REFERENCES

After the bid opening and prior to awarding the contract, the Department has the right to request references (name, address, phone number) of similar work performed in the previous two (2) years as proof of qualifications to perform the work involved in this contract.

E. CONTRACT REQUIREMENTS

All contract work must be completed by the termination date. Contractor agrees to comply with all attachments to this contract as referenced on the IFB – Invitation for Bid document.

F. INSURANCE REQUIREMENTS

The contractor shall purchase and maintain, at its expense, the following types of insurance, issued by the companies acceptable to the Commonwealth.

1. **WORKMEN'S COMPENSATION INSURANCE** – sufficient to cover all of the contractor employees working to fulfill this contract.
2. **PUBLIC LIABILITY AND PROPERTY DAMAGE INSURANCE** – to protect the Commonwealth, the Contractor, and any and all subcontractors from claims for damages for personal injury (including bodily injury), sickness or disease, accidental death and damage to property including the loss of use resulting from any property damage, which may arise from the activities performed under the contract, or the failure to perform under the Contract, whether such performance or non-performance be by the Contractor, by any subcontractor, or by anyone directly or indirectly employed by either. The minimum amounts of coverage shall be \$250,000 per person and \$1,000,000 per occurrence for bodily injury, including death, and \$250,000 per person and \$1,000,000 per occurrence for property damage. Such policies shall be occurrence rather than claims-made policies and shall not contain any endorsements or any other form designated to limit and restrict any action by the Commonwealth, as an additional insured, against the insurance coverage in regard to work performed for the Commonwealth.
3. **AUTOMOBILE BODILY INJURY INSURANCE** – to protect the Commonwealth and the contractor from claims arising out of the performance of the contract, including bodily injury and property damage insurance. The amount of bodily injury insurance shall not be less than \$250,000 for injury to or death of persons per occurrence. The amount of property damage insurance shall not be less than \$1,000,000 per occurrence. Automobile bodily injury and property damage insurance coverage shall include non-owned and leased vehicles. Evidence of such coverage shall be required even though the Contractor claims to own no vehicles to be employed on the project.

Prior to commencement of the work under the Contract and at each insurance renewal date during the term of the Contract, the Contractor shall provide the Commonwealth with current certificates of insurance. These certificates or policies shall name “**The Commonwealth of PA-DCNR**” as an additional insured and shall contain a provision that the coverage's afforded under the policies will not be cancelled or changed until at least thirty (30) days written notice has been given to the Commonwealth. **These certificates shall include the location and a brief description of the work to be performed under the contract.**

The Commonwealth shall be under no obligation to obtain such certificates from the Contractor(s). Failure by the Commonwealth to obtain the certificates shall not be deemed a waiver of the Contractor's obligation to obtain and furnish certificates. The Commonwealth shall have the right to inspect the original insurance policies.

G. CONTRACT TERM

The contract shall commence upon execution and receipt of purchase order and Notice to Proceed notification, and terminate on June 15, 2012. The contractor must notify a representative of the Rothrock State Forest seven (7) days prior to the start of operations. The Bureau of Forestry reserves the right to alter the ending date.

H. BID AWARD

Bidder shall complete the **electronic** Invitation for Bid to be found at www.pasupplierportal.state.pa.us, **and** complete and electronically attach Page 5 of Attachment A – Conditions for Construction Contracts, to the Invitation for Bid, for award of the bid.

Bid will be awarded based on a total sum.

Note: The Department will only accept out to two (2) decimal points when entering your “Unit Price” figure on the IFB-Invitation for Bid. In the event of a discrepancy between the Unit Price and extension of figures, the unit price will prevail.

Quantities are estimated and may increase or decrease depending on the needs of the Department. The Contractor shall be paid at the unit price bid for actual work performed.

I. PAYMENT TERMS

Payment shall be made upon satisfactory completion of contract for actual services performed.

J. INVOICES

Invoice format shall be in accordance with the IFB-Invitation for Bid.

All invoices for this contract **MUST** be sent to the following address:

Commonwealth of Pennsylvania – PO Invoice
P.O. Box 69180
Harrisburg, PA 17106

All invoices **MUST** have the Purchase Order Number, as well as your SAP Vendor Number, on the invoice. Failure to provide this will result in a delay of your payment.

K. RECEIPT AND OPENING OF BIDS

Bids must be submitted via the PA Supplier Portal, to be found at www.pasupplierportal.state.pa.us. Faxed bids and mailed bids **will not** be accepted.

No responsibility will be attached to any employee of the Department for the premature opening of, or the failure to open, a bid for any reason whatsoever.

L. BID RESULTS

Bidder can obtain bid results by accessing www.emarketplace.state.pa.us/bidtabs.aspx. The bids will be posted the morning following the bid opening. The results are the apparent bidders and all bids are under review until final award of the purchase order.

Attachments: Site Map
Gate Specifications (standard gate, paint scheme, wood pole gate)
Culvert Installation
Conditions for Construction Contracts - Attachment

ATTACHMENT A

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
CONDITIONS FOR CONSTRUCTION CONTRACTS1. Steel Products Procurement Act

In accordance with the Act of March 3, 1978 (P.L. 6, No. 3), as amended, known as the "Steel Products Procurement Act" (73 P.S. Section 1881 et seq.), the Contractor, subcontractors, materialmen or suppliers shall use only steel products produced in the United States. "Steel products" means products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated or otherwise similarly processed by a combination of two or more of such operations, from steel made in the United States by the open hearth, basic oxygen, electric furnace, Bessemer, or other steel making process, including cast iron products. With each shipment of steel or cast iron products delivered to the project site, the Contractor shall provide evidence to the Department's Field Representative that such steel products comply with the Act. When unidentified steel products are supplied, the Contractor must provide documentation which includes, but is not limited to: invoices, bills of lading, and mill certification that the steel was melted and manufactured in the United States, which establishes that the Contractor has fully complied with the Act. If a steel product is identifiable from its face, the Contractor must provide certification that it has fully complied with the Act.

The definition of steel products shall include machinery and equipment listed in United States Department of Commerce Standard Industrial Classification 25 (furniture and fixture), 35 (machinery, except electrical) and 37 (transportation equipment) and made of, fabricated from, or containing steel components. If a product contains both foreign and United States steel, such product shall be determined to be a United States steel product only if at least 75% of the cost of the articles, materials and supplies have been mined, produced or manufactured, as the case may be, in the United States. Transportation equipment shall be determined to be a United States steel product if it complies with Section 165 of Public Law 97-424 (96 Stat. 2136).

The Department shall not provide for, or make any payments to, any person who has not complied with the Act. Any such payments made to any person by the Department which should not have been made as a result of the Act shall be recoverable directly from the Contractor or subcontractor who did not comply with the Act. In addition to the above penalties, any person who willfully violates the provisions of the Act shall be subject to other penalties outlined in the Act.

2. Trade Practices Act

In accordance with the Act of July 23, 1968 (P.L. 686, No. 226), as amended, known as the "Trade Practices Act" (71 P.S. Section 773.101 et seq.), the Contractor shall not use or permit to be used in the work any aluminum or steel products made in a foreign country which is listed below as a foreign country which discriminates against aluminum or steel products manufactured in Pennsylvania. The countries of Brazil, Spain, South Korea, and Argentina have been found to discriminate against certain products manufactured in Pennsylvania. Therefore, the use of those countries' products, as listed below, is not permitted:

- a. Brazil: welded carbon steel pipes and tubes; carbon steel wire rod; tool steel; certain stainless steel products including hot-rolled stainless steel bar; stainless steel wire rod and cold-formed stainless steel bar; prestressed concrete steel wire strand; hot-rolled carbon steel plate in coil; hot-rolled carbon steel sheet.
- b. Spain: certain stainless steel products, including stainless steel wire rod, hot-rolled stainless steel bars, and cold-formed stainless steel bars; prestressed concrete steel wire strand; and certain steel products including hot-rolled steel plate, cold-rolled carbon steel plate, carbon steel structural shapes, galvanized carbon steel sheet, hot-rolled carbon steel bars, and cold-formed carbon steel bars.
- c. South Korea: welded carbon steel pipes and tubes; hot-rolled carbon steel plate; hot-rolled carbon steel sheet; and galvanized steel sheet.
- d. Argentina: carbon steel wire rod and cold-rolled carbon steel sheet.

Penalties for violation of this paragraph may be found in the Trade Practices Act, which penalties include becoming ineligible for public works contracts for a period of three (3) years. This paragraph in no way relieves the Contractor of responsibility to comply with the provisions of the Steel Products Procurement Act described herein.

3. Performance Security

In accordance with the Act of May 15, 1998 (P.L. 358, No. 57), known as the "Commonwealth Procurement Code" (62 Pa. C.S. Section 903), the Contractor must furnish performance security under the following conditions:

- a. For construction contracts awarded for amounts between \$5,000 and \$25,000, a performance security is not required by law, but performance or payment bonds or other acceptable forms of security may be requested when the Department in its discretion determines that such security is necessary to protect the interests of the Commonwealth. The amount of the security will be established by the Department; will be published with the procurement notice; must be supplied to the Department by the Contractor following advice of the award decision; and will be binding upon the execution of the Agreement.
- b. For construction contracts awarded for amounts between \$25,000 and \$100,000, a performance security is required by law in an amount equal to at least 50 percent of the contract price. The Department may specify the type of performance security, including a surety bond, and may in its discretion request an amount greater than 50 percent. The Department may also request additional forms of security, including a payment bond, in any amount up to 100 percent of the contract cost. If such additional types or amounts of security are requested, notification will be included in the procurement notice. The security requested must be supplied to the Department by the Contractor following advice of the award decision and will become binding upon the execution of the Agreement.

c. When a construction contract is awarded in excess of \$100,000, the following bonds are required by law; shall be delivered to the Department after the Contractor is notified of the award decision; and will be binding upon the execution of the Agreement:

1. A performance bond, executed by a surety company authorized to do business in this Commonwealth and made payable to the Commonwealth, in an amount equal to 100 percent of the price specified in the contract and conditioned upon the faithful performance of the contract in accordance with the plans, specifications and conditions of the contract.
2. A payment bond, executed by a surety company authorized to do business in this Commonwealth and made payable to the Commonwealth, in an amount equal to 100 percent of the price specified in the contract and conditioned upon the prompt payment for all materials furnished or labor supplied or performed in the prosecution of the work. Labor or materials include public utility services and reasonable rentals of equipment for the periods when the equipment is actually used at the site.

4. **Pennsylvania Prevailing Wage Act**

If the Department's estimated total cost of the Agreement exceeds \$25,000, the Agreement is subject to the provisions, duties, obligations, remedies, and penalties of the Act of August 15, 1961 (P.L. 987), as amended, known as the "Pennsylvania Prevailing Wage Act" (43 P.S. Section 165-1 *et seq.*). The general prevailing minimum wage rates as determined by the Secretary of Labor and Industry shall be paid for each craft or classification of all workmen needed to perform this Agreement during the term hereof for the locality in which the work is to be performed.

5. **Environmental Protection**

In carrying out the Agreement, the Contractor shall minimize pollution and shall strictly comply with all applicable environmental laws and regulations.

6. **Reciprocal Limitations Act**

If the Amount of this construction contract exceeds \$10,000, the contract is subject to the following provisions in the Commonwealth Procurement Code (62 Pa. C.S. 107), which section may be cited as the "Reciprocal Limitations Act":

- a. The Act requires the Department to give Pennsylvania resident bidders a preference as against a nonresident bidder from any state that gives or requires a preference to bidders from that state. The amount of the preference shall be equal to the amount of the preference applied by the state of the nonresident bidder. A Pennsylvania "resident bidder" is defined by the Act as a "person, partnership, corporation or other business entity authorized to transact business in this Commonwealth and having a bona fide establishment for transacting business in this Commonwealth at which it was transacting business on the date when bids or proposals for the public contract were first solicited."

The following is a list of the states which have been found to have applied a preference favoring in-state bidders and the amount of the preference:

<u>State</u>	<u>Preference</u>
1. Arizona	5% (construction materials from Arizona resident dealers only)
2. Montana	3%
3. West Virginia	2.5% for the construction, repair or improvement of any buildings
4. Wyoming	5%

- b. The Act also requires the Department not to specify, use or purchase any goods, supplies, equipment, or materials which are produced, manufactured, mined or grown in any state that prohibits the specification for, use, or purchase of such items or bidders in or on its public buildings or other works, when such items are not produced, manufactured, mined or grown in such state.

The following is a list of the states which have been found to have prohibited the use of out-of-state goods, supplies, equipment, or materials and the type of prohibition:

<u>State</u>	<u>Preference</u>
1. Georgia	Forest Products Only
2. Indiana	Coal Only
3. New Mexico	Bidders

If a bid discloses that the bidder is offering to supply one of the above-listed products from the listed state, the bid shall be rejected. Further, contractors are prohibited from supplying these items from these states in performance of the contract.

- c. In calculating the preference for purposes of determining the low bidder, the amount of a bid submitted by a Pennsylvania resident bidder shall be reduced by the percentage preference which would be given to a nonresident bidder by its state of residency.

THE BIDDER MUST COMPLETE AND RETURN AS PART OF ITS SEALED BID THE RECIPROCAL LIMITATIONS ACT "BIDDERS'S CERTIFICATION AS TO CONSTRUCTION CONTRACTS" ATTACHED HERETO. The Department will use this Certification in determining whether the bidder is a Pennsylvania resident bidder and whether the bidder is a nonresident bidder from a state that applies a preference favoring bidders from that state.

RECIPROCAL LIMITATIONS ACT – BIDDER’S CERTIFICATION AS TO CONSTRUCTION CONTRACTS (To Be Enclosed As Part Of Sealed Bid)

A. To determine if the bidder is a Pennsylvania “resident bidder” under the Act, the bidder hereby certifies that:

(1) It is
 is not (check one) authorized to transact business in Pennsylvania;

and

(2) It did have
 did not have (check one) a bonafide establishment for transacting business within Pennsylvania, at which it was transacting business on the issue/ mailing date shown in these Bid Documents.

and

(3) The address of bidder’s bonafide establishment for transacting business within Pennsylvania, at which it was transacting business on the issue/ mailing date shown in these Bid Documents, is as follows:

PENNSYLVANIA ADDRESS:

B. In determining whether the bidder is a nonresident bidder from a state that gives or requires a preference to bidders from that state, the bidder’s address given in these Bid Documents shall be used by the Department. If that address is incorrect, or if no address is given, please provide the correct address in the space below:

CORRECT ADDRESS:

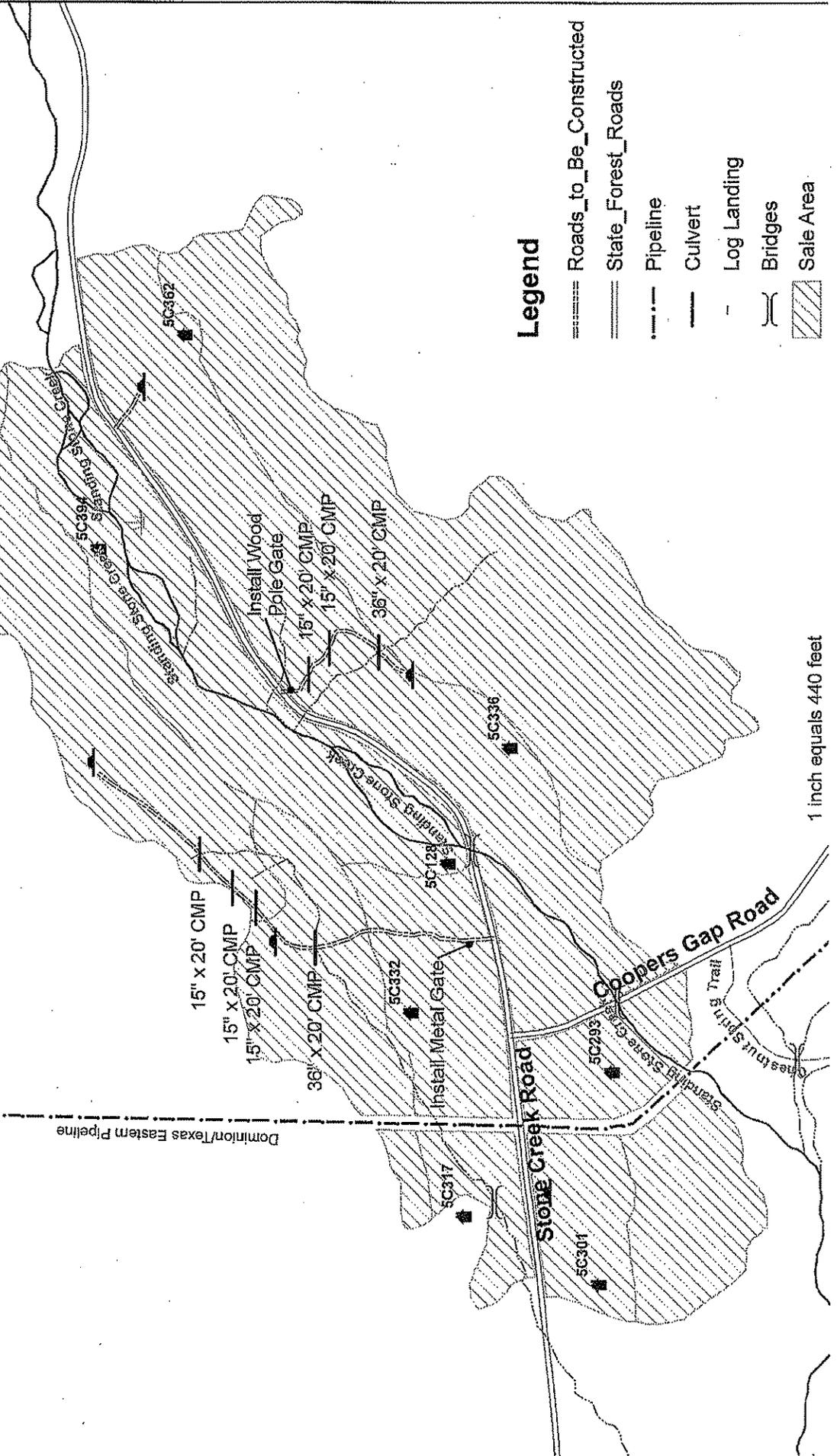
(Bidder)

By: _____

Title: _____

(Bidder: Complete all information requested on this page and return it as part of your sealed bid.)

Haul Road Construction Project
 FMT7 #052005BC03 Stone Creek Blowdown
 PA DCNR, Rothrock State Forest
 Huntingdon County, Pennsylvania



Legend

- Roads_to_Be_Constructed
- ==== State_Forest_Roads
- .-.- Pipeline
- Culvert
- Log Landing
- ⌋ Bridges
- ▨ Sale Area

1 inch equals 440 feet

Culverts

3930-PM-WM0500 Rev. 11/2008

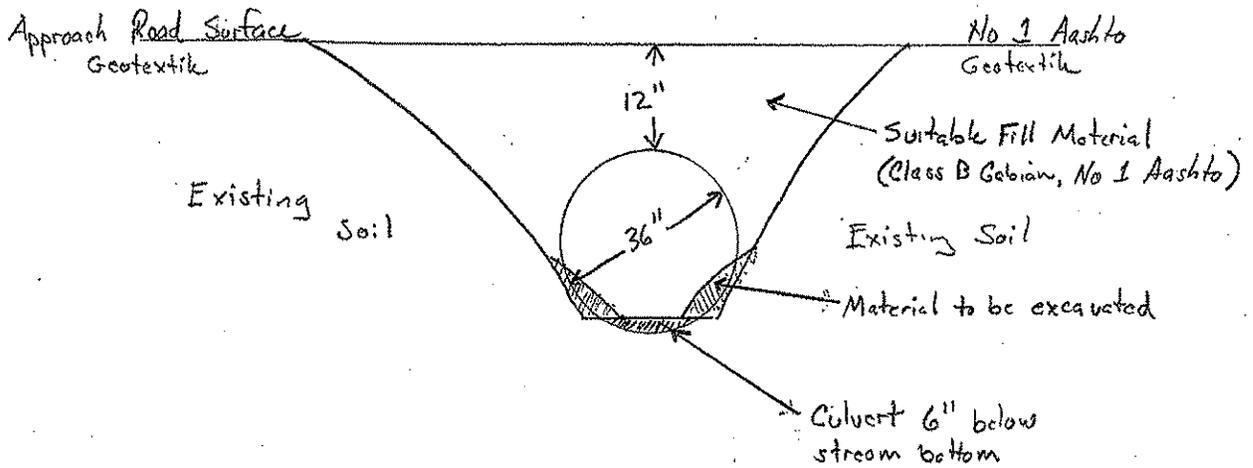
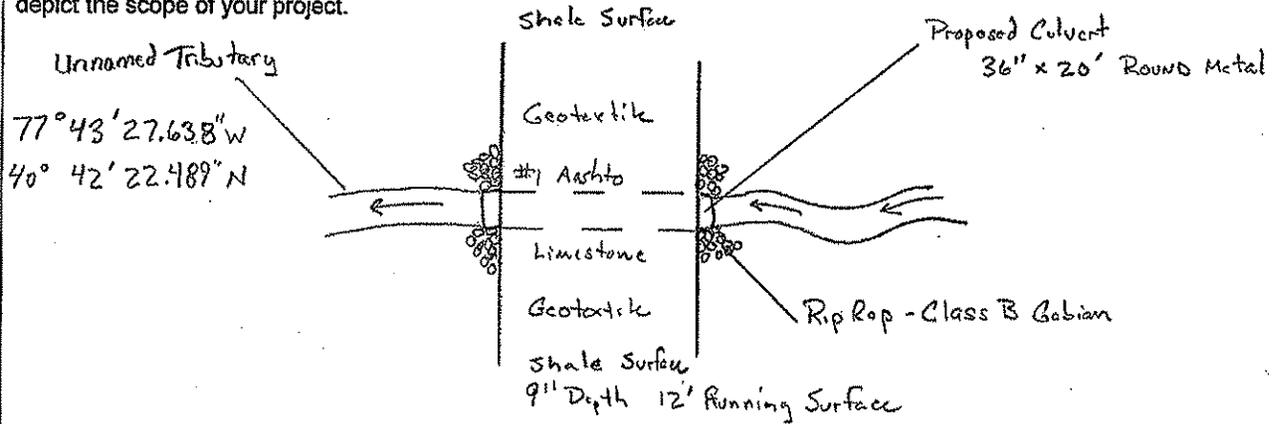
REGISTRATION FORM
(continued)

Mark Long Rothrock State Forest
Applicant Name

PROJECT
CROSS SECTIONS AND PLAN VIEWS

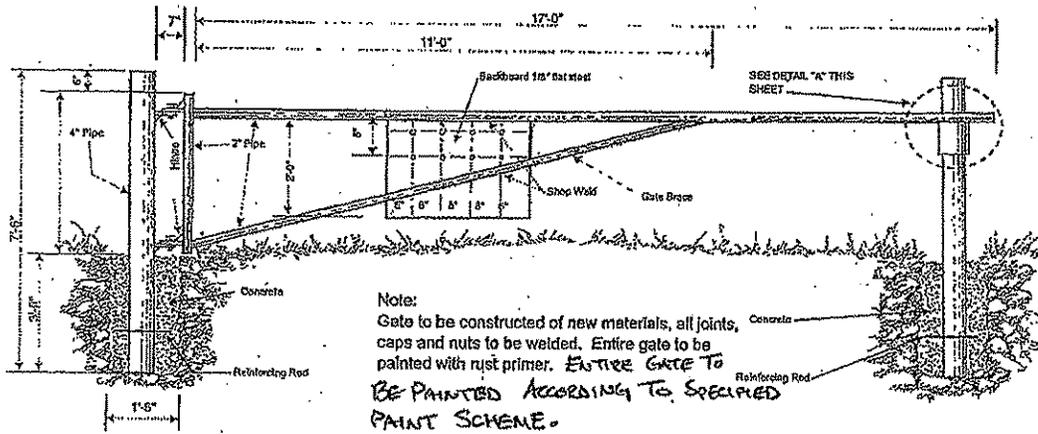
Required for General Permits 2, 3, 4, 5, 6, 7 and 8

Provide a cross section and plan view of the project (see sample drawings attached to the permits) showing the dimensions of the waterway opening, area of fill materials used, and other pertinent information necessary to accurately depict the scope of your project.



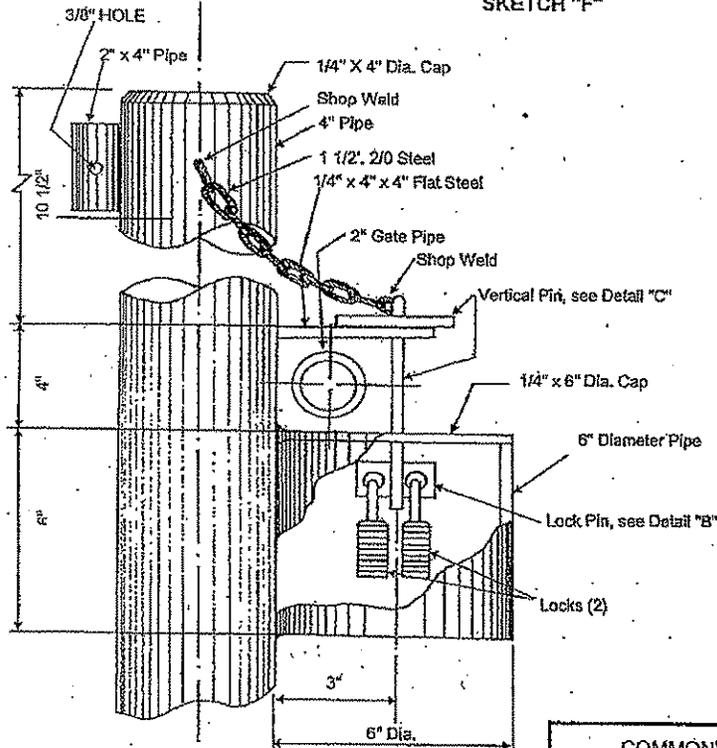
Not to Scale

SKETCH E - STANDARD GATE



GATE ASSEMBLY

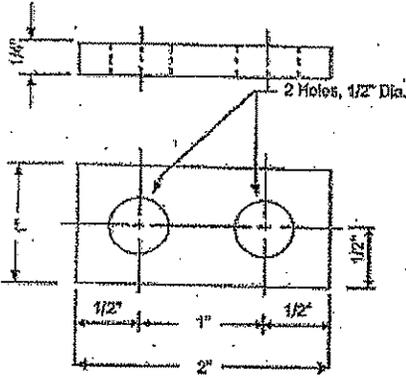
SKETCH "F"



LOCKING POST
Detail "A", 2 Required

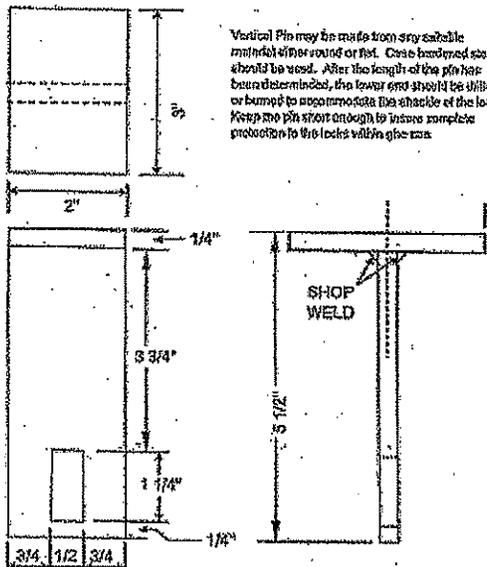
COMMONWEALTH OF PENNSYLVANIA	
DEPARTMENT OF CONSERVATION	AND
NATURAL RESOURCES	
STANDARD HAUL ROAD GATE	
October 5, 2005	Page 1 of 2

NOTE:
GATE MAY BE CONSTRUCTED OF EITHER
(3/16" Minimum) PIPE OR SQUARE STOCK, NO
MIXING OF MATERIALS



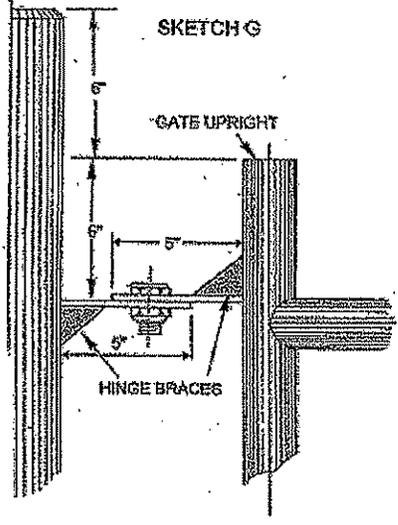
LOCK PIN
Detail "B", 2 Req'd

STANDARD GATE			
BILL OF MATERIALS			
ITEM	QTY	SIZE	MATERIALS
Post	3	4" Dia X 7'-6"	Steel Pipe/Square
Top Gate Bar	1	2" Dia X 17'-0"	Steel Pipe/Square
Gate Braces	1	2" Dia X 12'-0"	Steel Pipe/Square
Gate Upright	1	2" Dia X 4'-0"	Steel Pipe/Square
Lock Cover	2	8" Dia X 6 1/2"	Steel Pipe/Square
Post Cap	3	1/4" X 4"	Flat Steel
Lock Cover Cap	2	1/4" X 6"	Flat Steel
Lock Slide Holder	2	1/4" X 4" X 4"	Flat Steel
Lock Slide Top	2	1/4" X 2" X 3"	Flat Steel
Lock Slide Tong	2	1/4" X 2" X 5 1/4"	Flat Steel
Hinge Halves	4	1/4" X 2" X 5"	Flat Steel
Hinge Pins	2	3/4" X 1 1/4"	Case Hard Nut & Bolt
Hinge Braces	4	1/4" X 1 1/2" X 1 1/2"	Flat Steel
Reinforcing Rod	4	1/2" X 12"	Steel Bar
Concrete	20	80 Lb. Bags	Dry Sack Ready Mix
Paint	1	Quart	Primer, Rust Prevent.
Lock Pin	2	1/4" X 1" X 2"	Flat Steel
Chain	2	1 1/2"	2/0 Steel
Backboard	1	1' X 2' X 3' X 1/8"	Flat Steel



VERTICAL PIN
Detail "C", 2-Req'd

Vertical Pin may be made from any suitable material either round or flat. Case hardened steel should be used. After the length of the pin has been determined, the lower end should be drilled or burred to accommodate the shape of the lock. Keep the pin short enough to insure complete protection to the locks with the gate rise.



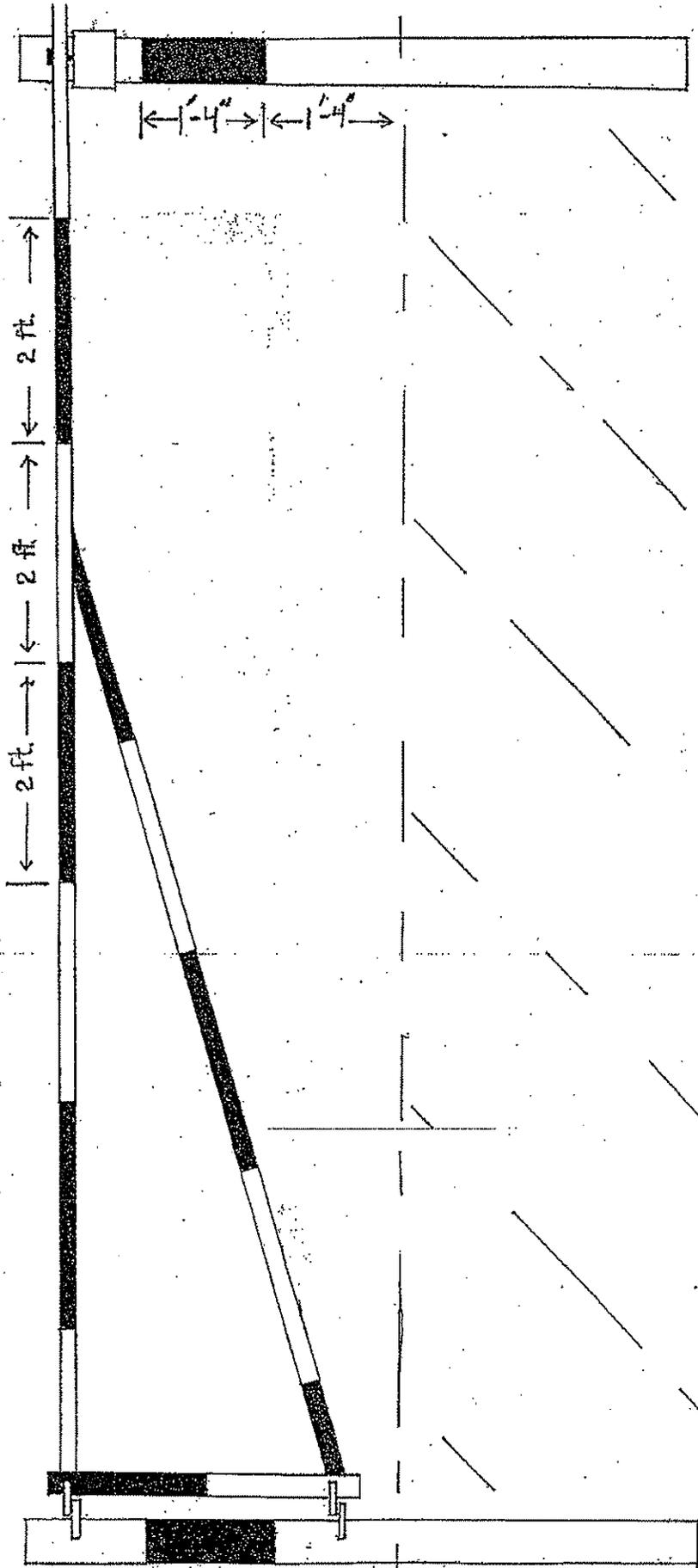
GATE HINGE
Detail "D", 2-Req'd

STEEL PIPE GATE PAINT SCHEME

PAINTING ORDER

Locks to be protected from moisture and periodically lubricated

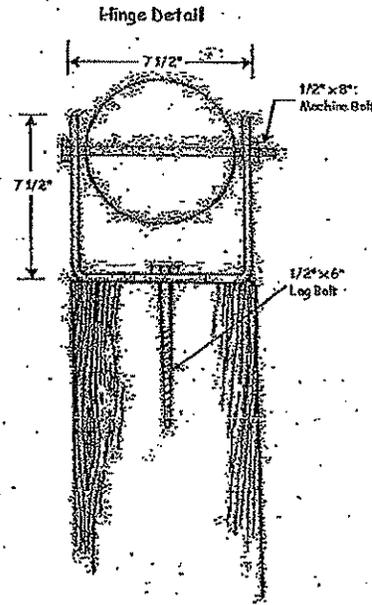
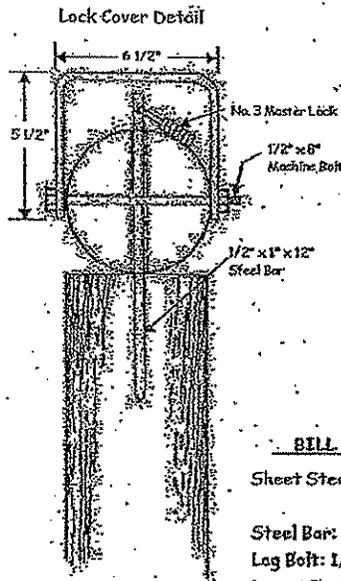
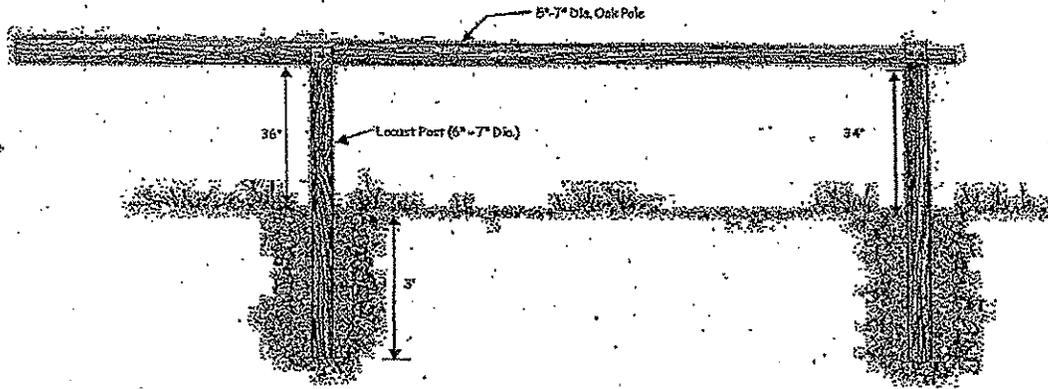
1. Wire brush if necessary
2. One coat primer
3. Two coats black - overlap into yellow blocks
4. Tape off yellow blocks
5. Two coats safety yellow on appropriate blocks
6. Paint or adhere camp's numeric identification number on the gate post. Numbers should be a minimum of 2" in size and be readily visible from the road when the gate is open or closed.



WKM 4/54

Not to Scale

WOOD POLE - TYPE GATE



BILL OF MATERIALS

- Sheet Steel: 1/4" x 6" x 23"
- 1/4" x 6" x 18"
- Steel Bar: 1/2" x 1" x 12"
- Log Bolt: 1/2" x 6"
- Locust Posts: 2 @ 6-7' x 6"
- Oak Pole: 5-7" x variable length

4" x 4" treated wood may be substituted for locust and oak

COMMONWEALTH OF PENNSYLVANIA
 Department of Conservation and Natural
 Resources
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