SAFETY REGULATIONS

ALL EXCAVATION AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MARYLAND OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (MOSHA) STANDARDS AS SET FORTH IN THE LATEST VERSION OF THE CODE OF MARYLAND REGULATIONS

CONSTRUCTION NOTIFICATION

The Contractor/Owner is to notify the County SOIL CONSERVATION DISTRICT at least 72 hours prior to construction to facilitate any scheduling, layout, or preliminary mobilization necessary to ensure proper construction inspection to enable appropriate certification of the project.

It is the Landowner's responsibility to obtain all County, State, and Federal permits that may be needed, and to maintain this structure and related regulations.

THERE WILL BE NO CHANGES IN SPECIFICATION, DIMENSIONS, OR MATERIALS UNLESS APPROVED BY THE ENGINEER RESPONSIBLE FOR THIS DRAWING. THE DRAWINGS ARE PREPARED COOPERATIVELY BY THE NATURAL RESOURCE CONSERVATION SERVICE FOR THE NAMED LANDOWNER.

CONSTRUCTION FOUND NOT IN ACCORDANCE WITH THESE DRAWINGS AND SPECIFICATIONS SHALL VIOLATE THE COOPERATIVE AGREEMENT AND ALL DRAWINGS, SPECIFICATIONS, AND QUANTITIES ESTIMATE SHALL IMMEDIATELY BE RETURNED TO THE LOCAL NRCS OFFICE.

GENERAL NOTES:

- PLEASE CONTACT THE SOIL CONSERVATION DISTRICT AT PHONE #
- AT LEAST 3 DAYS PRIOR TO CONSTRUCTION TO ARRANGE A PRE-CONSTRUCTION MEETING
- A CONSERVATION TECHNICIAN SHALL SET CUT/GRADE STAKES AT THE CONTRACTORS
- A CONSERVATION TECHNICIAN MUST BE PRESENT AT THE TIME OF THE SUPPLY LINE AND/OR PIPE INSTALLATION, IF REQUIRED

- The landowner will arrange for a pre-construction meeting between the contractor, NRCS and landowner to review the plans, standards and specifications prior to the start of construction.

- owner/operator. Construction found not in accordance with these drawings and specifications shall violate the cooperative agreement and all drawings, specifications, and Quantities Estimate shall immediately be returned
- The following is a list of items that must be inspected by the Technician-in-Charge. If cost share is involved

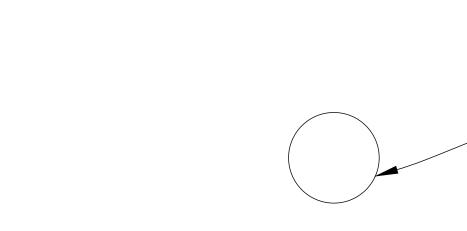
•	Preconstruction Meeting	Date:	Initials:
	Verify layouts:	Date:	Initials:
	Verify Pipe Placement:		
	Inspect Trench and Grades:	Date:	Initials:
	Pipe Placement:	Date:	Initials:
	Pipe Material and Size:	Date:	Initials:
	Placement of Stone Envelope:	Date:	Initials:
	Backfill and Compaction:	Date:	Initials:
	Hydrant Installation:		
	Type verified	Date:	Initials:
	Connections verified	Date:	Initials:
	Backflow preventer verified	Date:	Initials:
	Shut-off verified	Date:	Initials:
,	Final Grading:	Date:	Initials:
	All disturbed areas seeded and mulched:	Date:	Initials:
•	Other items shown on the plans:	Date:	Initials:

CRITICAL INSPECTION ITEMS (Watering Facility)

- The landowner will arrange for a pre-construction meeting between the contractor, NRCS and landowner to review
- the plans, standards and specifications prior to the start of construction. There will be no changes in specifications, dimensions, or materials unless approved by the engineer responsible
- The drawings are prepared cooperatively by the Natural Resources Conservation Service for named owner/operator. Construction found not in accordance with these drawings and specifications shall violate the cooperative agreement and all drawings, specifications, and Quantities Estimate shall immediately be returned to

•	Preconstruction Meeting	Date:	Initials:
•	Verify layouts:	Date:	Initials:
•	Verify all subgrades:		Initials:
•	Verify Pipe Placement:		
	Inspect Trench and Grades:	Date:	Initials:
	Pipe and Drain Tubing Placement:	Date:	Initials:
	Pipe Material and Size:		Initials:
	Placement of Stone Envelope:		Initials:
	Backfill and Compaction:		Initials:
	Rodent Guard Installed at Outlet:	Date:	Initials:
•	Placement of Collection Ring (When Applicable):		
	Material and Size:	Date:	Initials:
	Placement:	Date:	Initials:
	Proper Lid and Bottom:		Initials:
	Connections:		Initials:
	Backfill:	Date:	Initials:
•	Placement of Watering Facility:		
	Inspect Foundation:	Date:	Initials:
	Subgrade Material:	Date:	Initials:
	Placement of Trough:	Date:	Initials:
•	Placement of Concrete or Stone Pad:		
	Inspect Foundation:	Date:	Initials:
	Gradation and Placement of Stone or Subbase:	Date:	Initials:
	Reinforcement Steel for Concrete Pad:	Date:	Initials:
	Placement and Curing of Concrete:	Date:	Initials:
•	Final Grading:	Date:	Initials:
•	Fencing:	Date:	Initials:
	Type and Materials:		Initials:
	Proper location:		Initials:
	Installation:		Initials:
•	All disturbed areas seeded and mulched:		Initials:
_	Other items shown on the plans:		Initials:

LANDOWNER - SITE NAME 614 WATERING FACILITY



REVISED 7/1/2021

LOCATION MAP



USER TO INSERT SHEET LIST TABLE

AS-BUILT STATEMENT

THE CONSERVATION PRACTICE(S) MEETS OR EXCEEDS

NRCS STANDARI	OS AND SPECIFICATIO	NS
INSPECTED BY		
	SIGNATURE	DATE
CONSTRUCTION APPROVAL		
	SIGNATURE	DATE
VERIFIED DISTRICT		
CONSERVATIONIST	SIGNATURE	DATE

AS BUILT CONTRACT ITEMS:	Reportable	Contract	
PRACTICE	Amount	Amount	

USER TO ENTER PRACTICES

OWNER/CONTRACTOR STATEMENT

I CERTIFY THAT THIS DESIGN HAS BEEN EXPLAINED TO ME BY A REPRESENTATIVE OF THE COUNTY SOIL CONSERVATION DISTRICT, AND I UNDERSTAND THE CONTENTS, ALL CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS AND SPECIFICATIONS, I FURTHER UNDERSTAND THAT ALL CONSTRUCTION WILL BE UNDER THE INSPECTION OF THIS OFFICE.

OWNER/OPERATOR SIGNATURE	DATE

ONTRACTOR'S SIGNATURE	DATE



Know what's below. Call before you dig.

All disturbed areas to be stabilized within 7 days of completion, using the following recommendations.

NAME

WNER

Ö

August 1 thru October 1

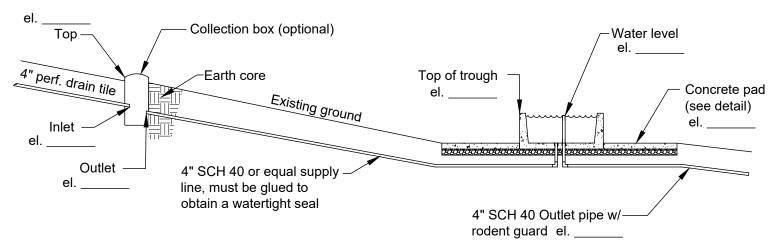
Tall Fescue Perennial Ryegrass or 5 lb/ac Redtop (tolerates moist sites) 2 lb/ac White Clover 5 lb/ac 20-40-40 Fertilizer 500 lb/ac Ground lime 50% oxides 3 tons /ac Straw Mulch 2 tons/ac Dates listed are for plant hardiness Zone 6B, dates will need to be changed for other zones. Seeding Dates March 1 thru May 15

\sim 1	тг		/ / ·	\mathbf{T} Λ
		-	1 🔼	1 4

LANDOWNER INFORMATION:

"The Soil Conservation District makes no representation as to the It is the landowner responsibility to obtain All County, existence or Non-existence of any utilities at the construction site. State, and Federal permits that may be needed, and Shown on these construction drawings are those utilities which to maintain this structure and those regulations. have been identified. It is the responsibility of the landowners or operators and contractors to assure themselves that no hazard **USER TO ENTER SEEDING INFO** exists or damage will occur to utilities" **MATERIALS LIST** * For bidding purposes only United States Department of Agriculture SIIL DAIA. STREAM CLASSIFICATION: **USER TO ENTER INFORMATION** STREAM CLOSURE DATE(S) **CONTACT PERSON:** File Name MD 0053 WateringFacility.dwg SITE DETAILS: TOTAL DISTURBED ACRES = ± Drawing No. TOTAL DISTURBED SQFT = ± MD 0053 Construction supervision by NRCS/MDA/SCD personnel. Landowner's permission for MDE and COE inspection. Sheet 1 of

GRAVITY FEED SYSTEMS



Supply Line Detail

BENCH MARK DESCRIPTIONS

TBM #1 (IP): Elev = ???.?? Top of 1" X 2" wooden hub, marked by witness lath.

TBM #2: Elev = ???.?? Top of 1" X 2" wooden hub, marked by witness lath, near NW corner of building.

TBM #3: Elev = ???.?? Top of bolt in NW corner of concrete.

- 1. Exact location of supply line to be determined during construction by the landowner and soil conservation district
- 2. All lines to have a min 24" cover
- 3. Overflow line to extend to outlet as approved. A rodent guard must 3. Set trough be installed at the outlet.
- 4. Specify 12" opening in bottom of trough. Opening to be concreted after pipe installation. (use hydraulic cements, no pre-mixed material)
- 5. Concrete apron must have 6 gauge 6"x6" welded wire mesh
- 6. Concrete to be minimum 3500 psi with 5% air entrainment and a
- slump of 3-5 inches. 7. Collection box and trough pipes shall be 4" SCH 40 pvc pipe
- **INSTALLATION NOTES:**
- 1. Grade pad for trough and install inlet pipe, including
- 2. Backfill with #57 stone around trough
- 4. Seal bottom holes
- 5. Pour concrete apron 6. Complete installation
- 7. Grade around all facilities as necessary to maintain
- positive drainage and spread spoil as directed by landowners
- 8. All disturbed areas to be stabilized within 14 days of completion, using the seeding recommendations provided

GRAVITY FED TROUGH Not to scale

USER TO CLICK ON BLOCK AND ENTER INFORMATION

PLAN VIEW

_ 4" SCH 40 Threaded

4" SCH 40 PVC pipe length

will vary due to supply line

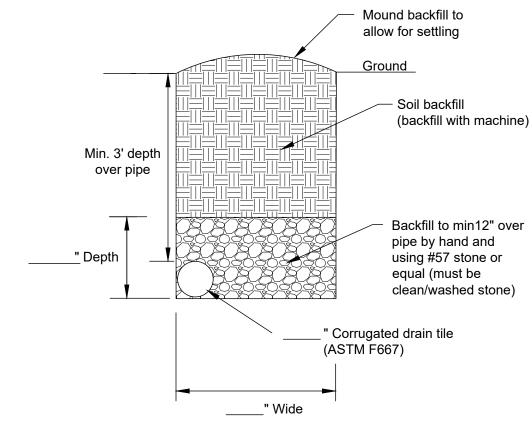
To trough

Location to be determined

by landowner

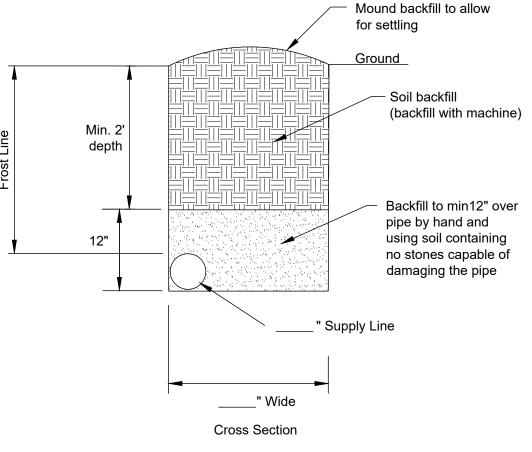
Shut-off valve

MISC. DETAILS



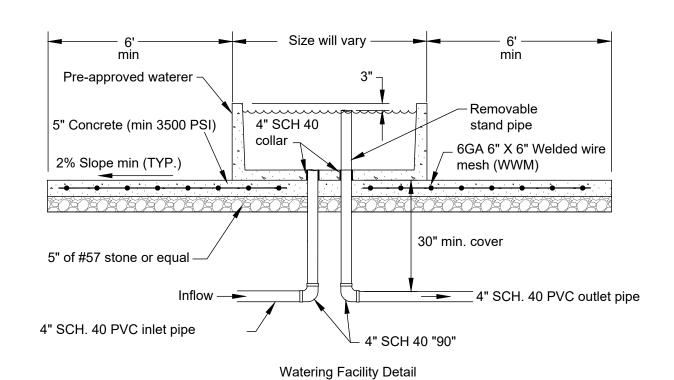
regulations. When collecting water for potable uses, meet the requirements of the state health department for materials and installation. Permits may be required for the installation of these systems. Contact the Permits

USER TO CLICK ON BLOCK AND ENTER INFORMATION



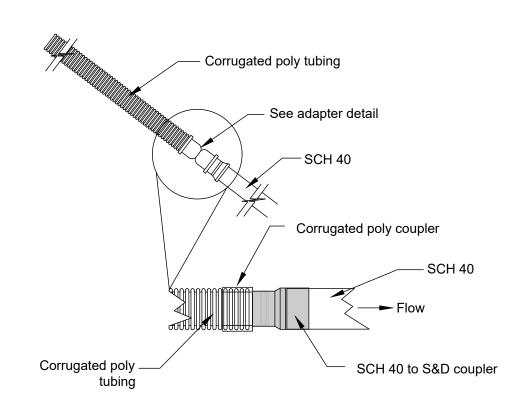
SUPPLY LINE BACKFILL DETAIL Not to scale

USER TO CLICK ON BLOCK AND ENTER INFORMATION



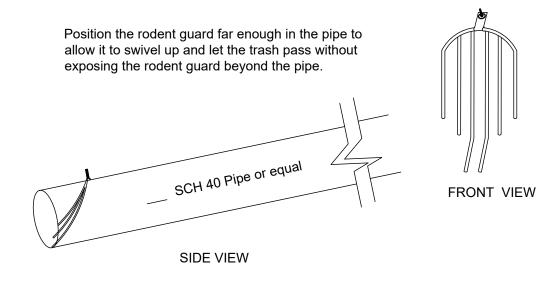
Note: This option can replace the collection box if distance between outlet and trough is less than 250ft. 4" SCH. 40 4" SCH. 40 PVC outlet pipe w/ PVC inlet pipe rodent guard 4" SCH. 40 screw cap at outlet 4" SCH. 40 "TEE"-Double Tee Flush System Detail Fork type NOTE: Supply line to trough must be SCH 40 PVC pipe and be glued to ensure watertight seal. Rodent Guard Detail

GRAVITY FED TROUGH "DOUBLE TEE" Not to scale



ADAPTER DETAIL Not to scale

USER TO CLICK ON BLOCK AND ENTER INFORMATION



NOTE: A hole must be drilled in the top of the pipe in order to attach the rodent guard

> **OUTLET DETAIL** Not to scale

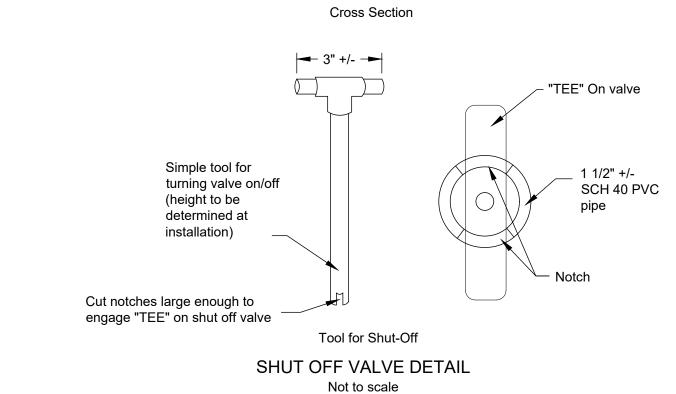
USER TO CLICK ON BLOCK AND ENTER INFORMATION

Ŏ NAME District SITE Cons OWNER Ś Ö States ment of United States Department Agriculture

File Name MD_0053_WateringFacility.dvg

Drawing No. MD 0053

Sheet 2 of 3

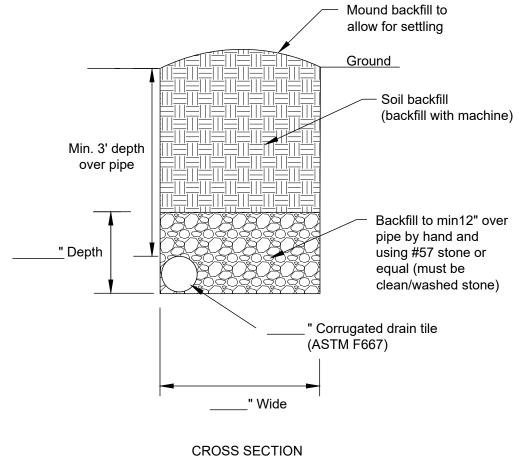


On/Off tool stored

(see detail below)

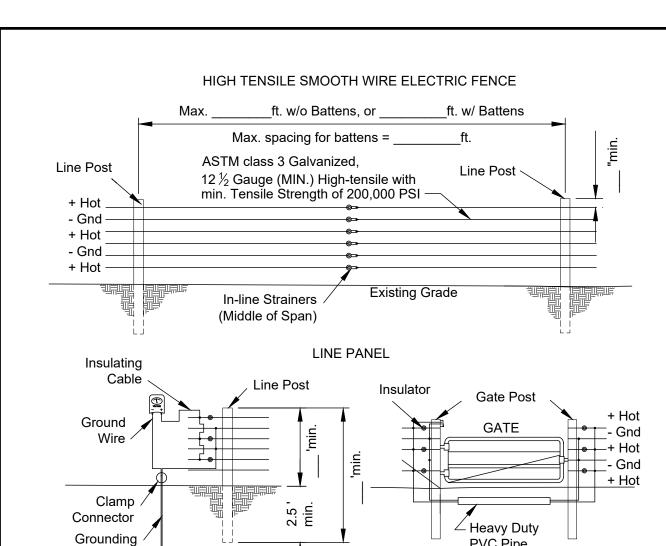
inside of pipe

To well/trough



CONSTRUCTION NOTES Plan, design and construct spring developments in accordance with Federal, State, and Local laws and Division of the local county government for regulations and permit requirements.

> TILE DRAIN DETAIL Not to scale



GATE DETAIL Follow all manufacture's instructions when installing the fence charger (energizer) and grounding the

PVC Pipe

Number of wires needed: _ inches above the ground. _spacing at Line Post (wooden): min. 4 in. diam. or 4 in. square Line Post (steel): studded or punched T, U, or Y shaped, with anchor plates.

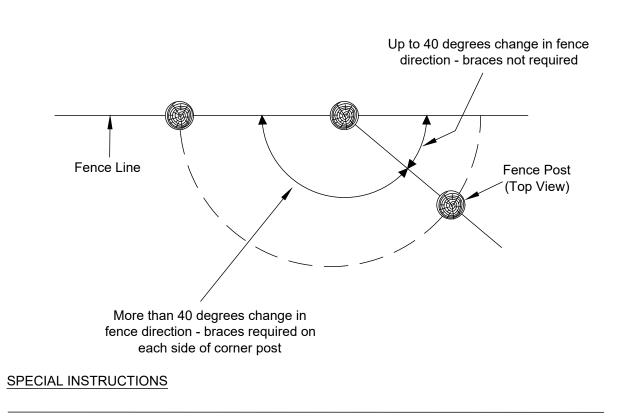
SPECIES AND TREATMENT FOR ALL WOOD: use untreated durable posts of species such as red cedar, or black locust with bark removed, or non-durable wood that is preservative pressure treated (0.40 lbs./cubic foot CCA, or use Code UC4A). Do not use red pine.

SPECIAL INSTRUCTIONS:

Drawing not to scale. Standardized drawing must be adapted to the specific site. HIGH TENSILE ELECTRIC Not to scale

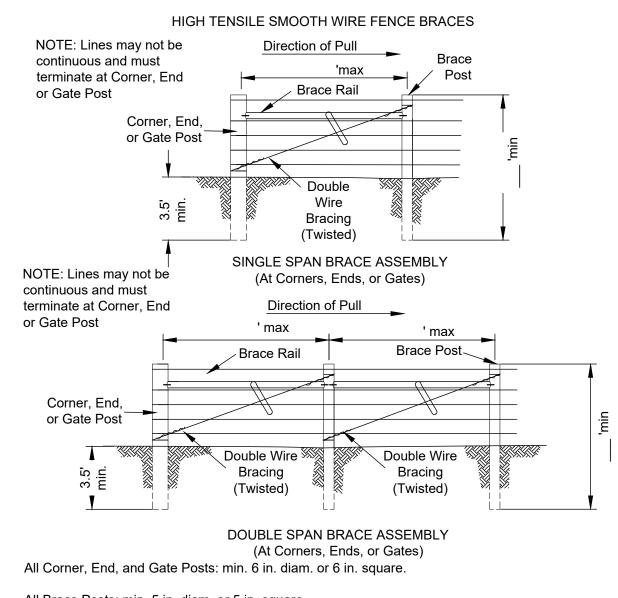
min. weight 1.25 lbs./ft. (excluding anchor plate).

CLICK BLOCK AND ENTER INFO



Drawing not to scale. Standardized drawing must be adapted to the specific site. BRACING ON ANGLED POSTS Not to scale

CLICK BLOCK AND ENTER INFO



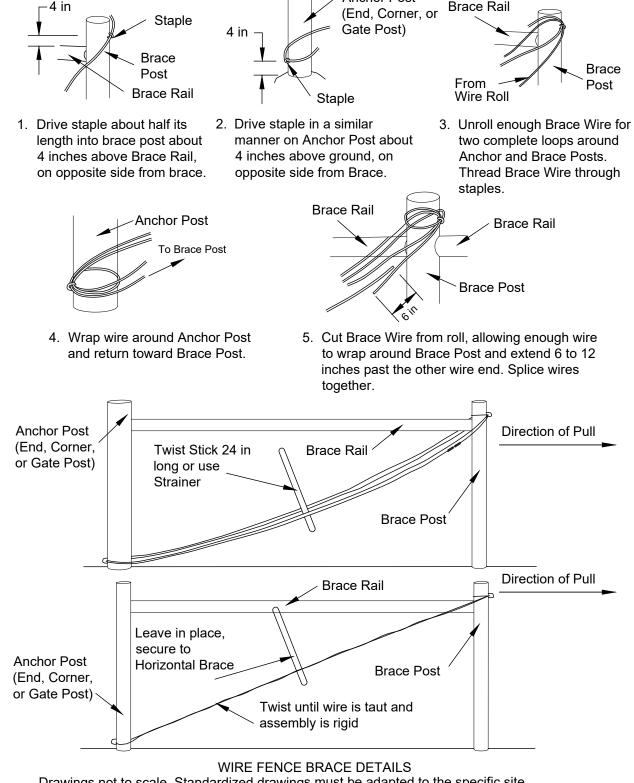
All Brace Posts: min. 5 in. diam. or 5 in. square.

Brace Rails (steel): min. 2 in. diam. Brace Rails (wooden): min. 4 in. diam. or 4 in. square.

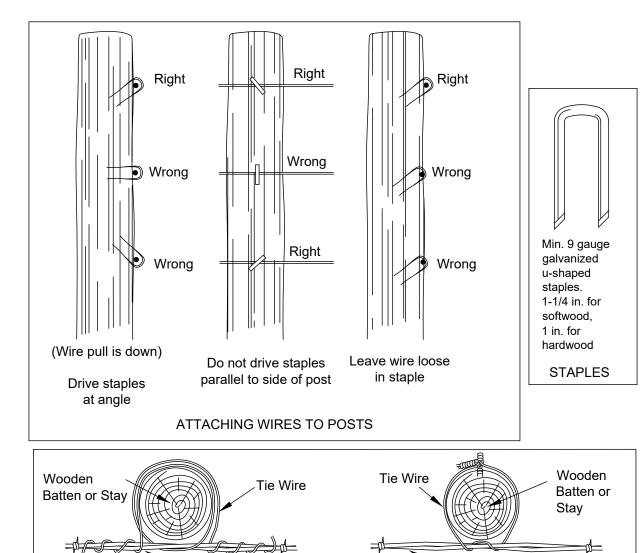
SPECIES AND TREATMENT FOR ALL WOOD: use untreated durable posts of species such as red cedar, or black locust with bark removed, or non-durable wood that is preservative pressure treated (0.40 lbs./cubic foot CCA, or use Code UC4A). Do not use red pine.

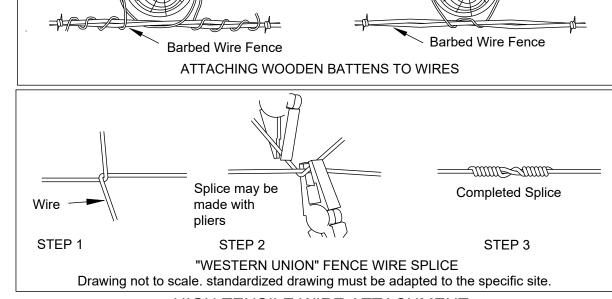
SPECIAL INSTRUCTIONS:

Drawing not to scale. Standardized drawing must be adapted to the specific site. HIGH TENSILE BRACE ASSEMBLY Not to scale



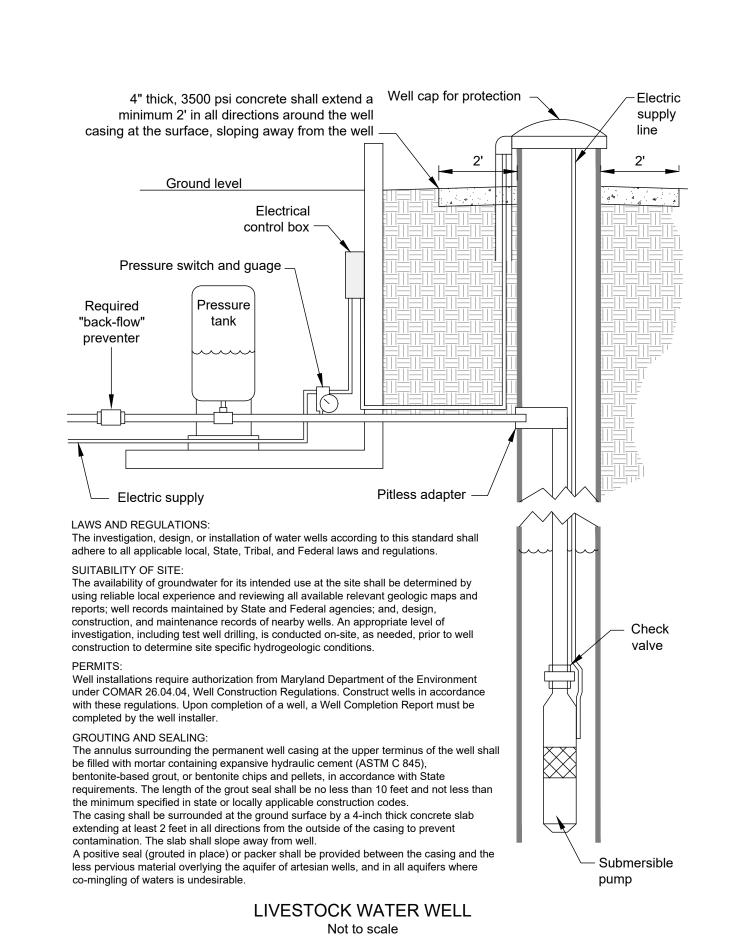
Drawings not to scale. Standardized drawings must be adapted to the specific site. **WIRE FENCE BRACE** No to scale

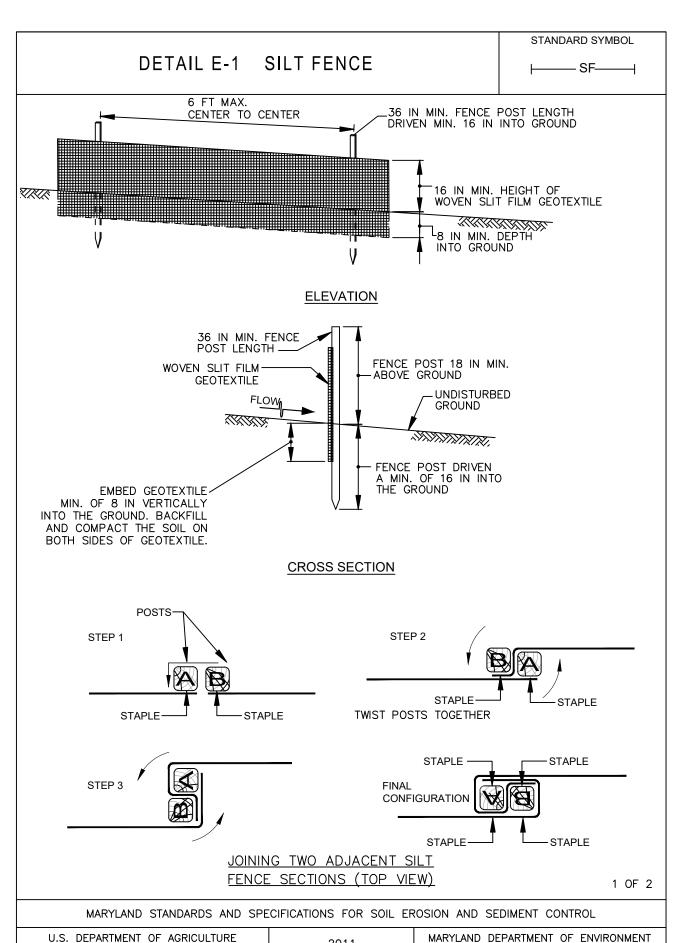




HIGH TENSILE WIRE ATTACHMENT Not to scale

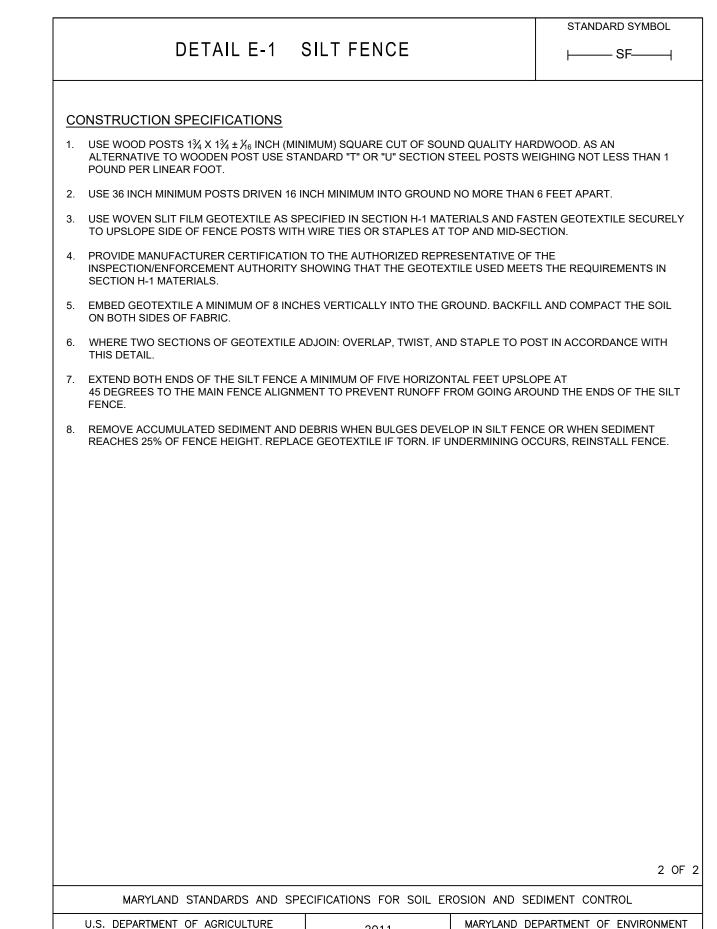
CLICK BLOCK AND ENTER INFO



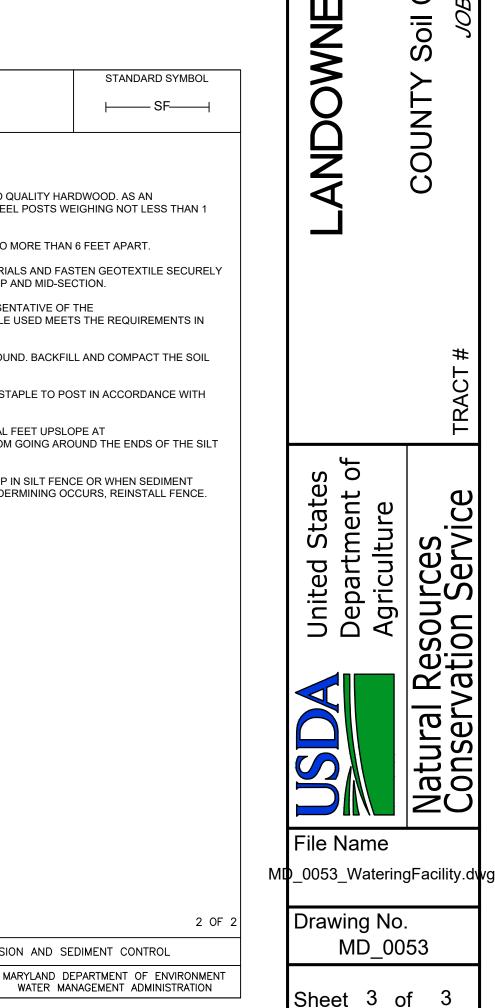


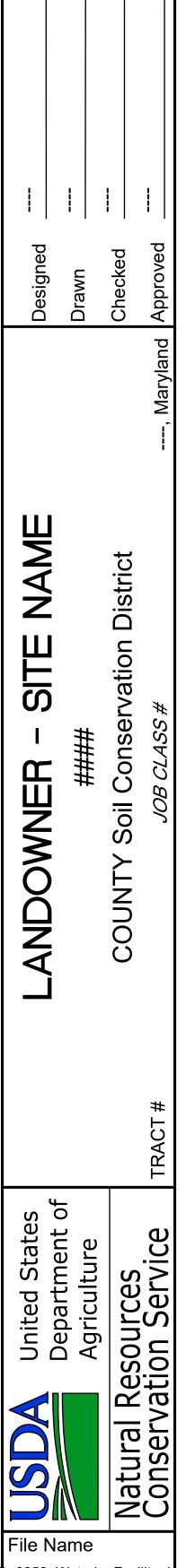
WATER MANAGEMENT ADMINISTRATION

NATURAL RESOURCES CONSERVATION SERVICE

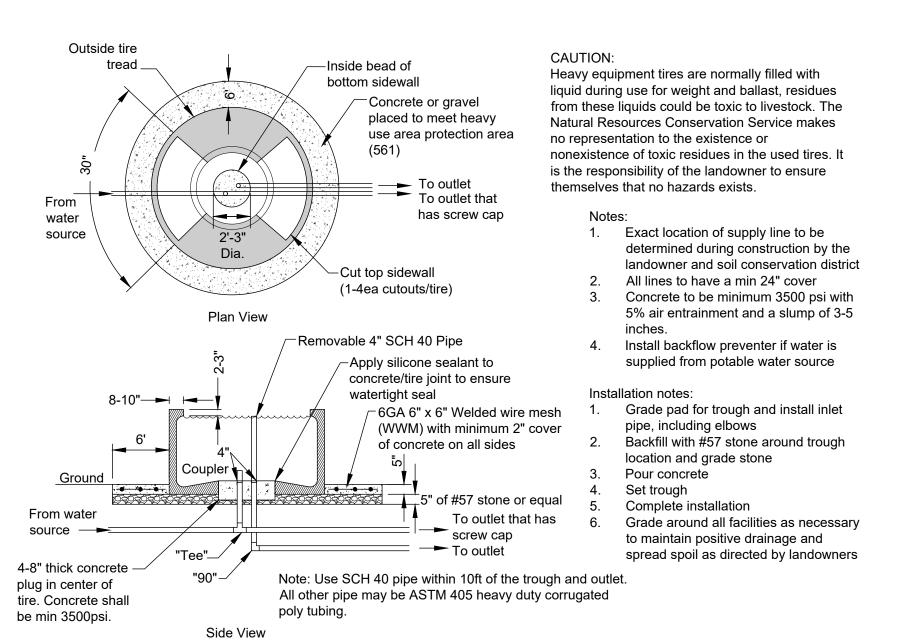


NATURAL RESOURCES CONSERVATION SERVICE



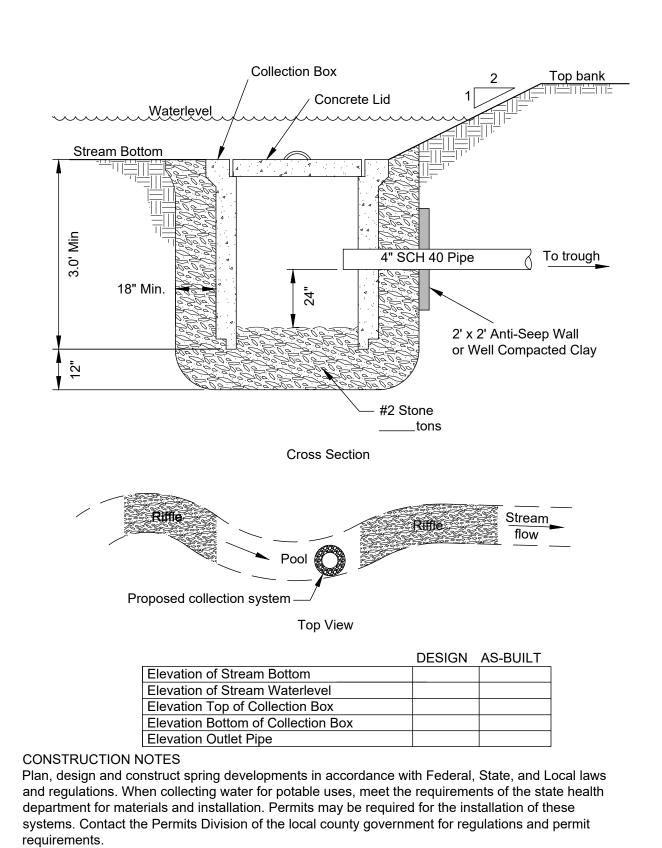


GRAVITY FEED SYSTEMS



GRAVITY FED TROUGH - TIRE TYPE Not to scale

CLICK BLOCK AND ENTER INFO



GRAVITY FED TROUGH STREAM WATER COLLECTION - CONCRETE RISER Not to scale

CLICK BLOCK AND ENTER INFO

16 Gauge corrugated riser with steel lip same diameter as bottom hole 8-10" Float valve Screen top of Apply silicone sealant to overflow pipe concrete/tire joint to ensure -6GA 6" x 6" Welded wire watertight seal mesh (WWM) with minimum 2" cover of concrete on all ∕-1" Collar __2" Collar ~4-8" Concrete ___ 5" of #57 stone or plug equal 2" Galvanized steel pipe Flow 2" Sch 40 PVC 1" Sch 40 PVC Elbow-- 2" Sch 40 PVC Elbow Cross Section

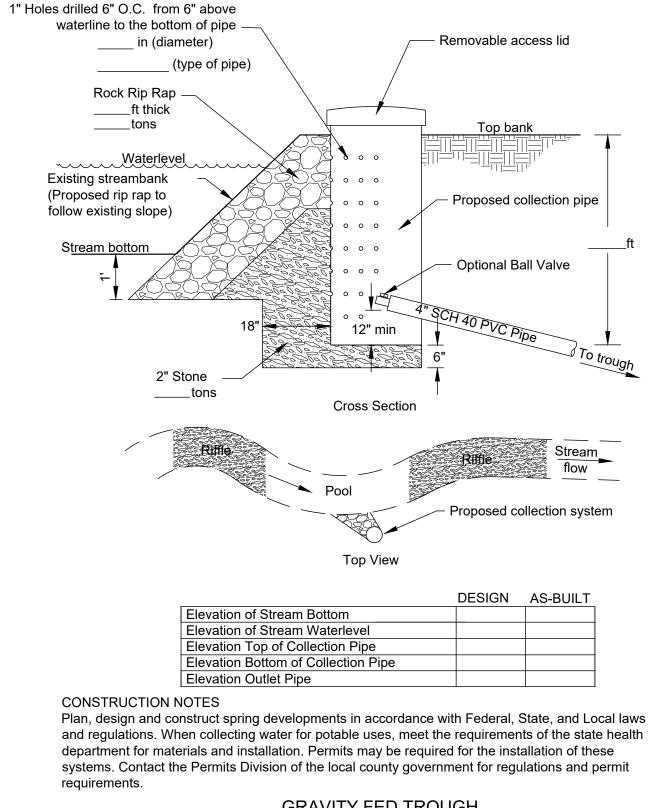
CAUTION:

Heavy equipment tires are normally filled with liquid during use for weight and ballast, residues from these liquids could be toxic to livestock. The Natural Resources Conservation Service makes no representation to the existence or nonexistence of toxic residues in the used tires. It is the responsibility of the landowner to ensure themselves that no hazards exists.

1. Exact location of supply line to be determined during

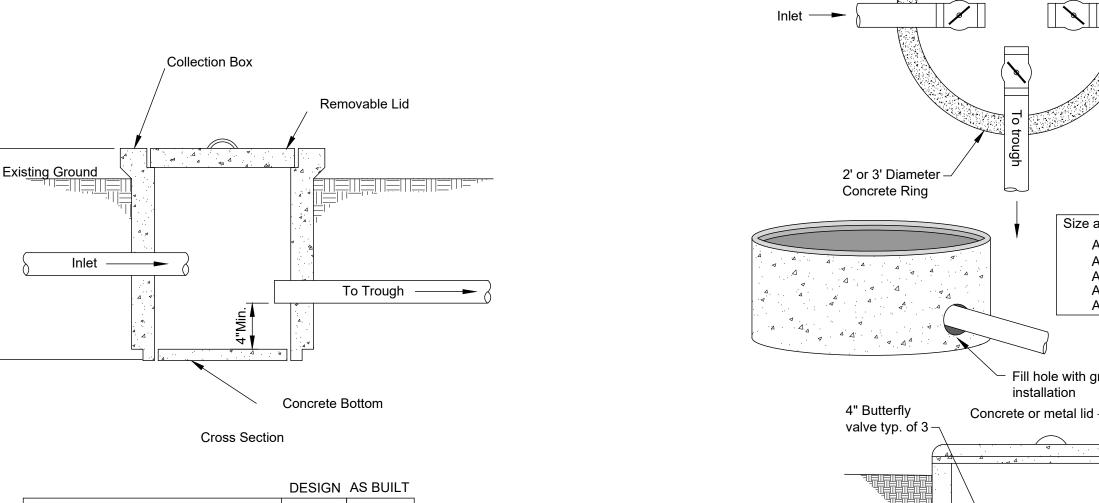
- construction by the landowner and soil conservation district All lines to have a min 24" cover
- Concrete to be minimum 3500 psi with 5% air entrainment
- and a slump of 3-5 inches. Install backflow preventer if water is supplied from potable 6. Grade around all facilities as necessary to maintain positive
- water source
- 1. Grade pad for trough and install inlet pipe, including elbows
- 2. Backfill with #57 stone around trough location and grade stone Pour concrete
- 4. Set trough
- Complete installation
- drainage and spread spoil as directed by landowners
- GRAVITY FED TROUGH TIRE TYPE WITH FLOAT Not to scale

CLICK BLOCK AND ENTER INFO



GRAVITY FED TROUGH STREAM WATER COLLECTION - PLASTIC PIPE

CLICK BLOCK AND ENTER INFO



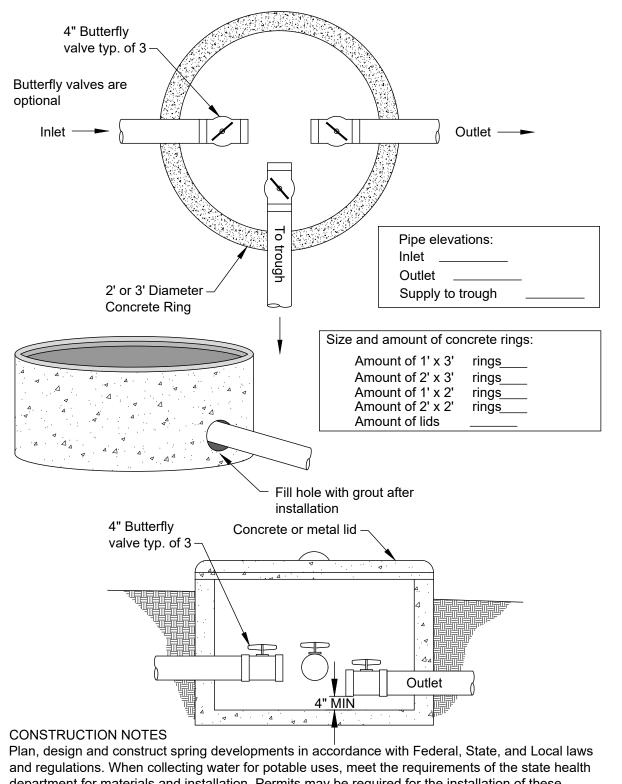
Elevation Top of Structure Elevation at Pipe Invert (Inlet) Elevation at Pipe Invert (Outlet) Elevation Top of Collection Pipe

CONSTRUCTION NOTES

- 1. Plan, design and construct spring developments in accordance with Federal, State, and Local laws and regulations. When collecting water for potable uses, meet the requirements of the state health department for materials and installation. Permits may be required for the installation of these systems. Contact the Permits Division of the local county government for regulations and permit requirements. 2. A minimum of 10ft of SCH 40 PVC pipe shall be installed at the inlet and outlet of the collection box.

GRAVITY FED TROUGH CONCRETE WATER COLLECTION Not to scale

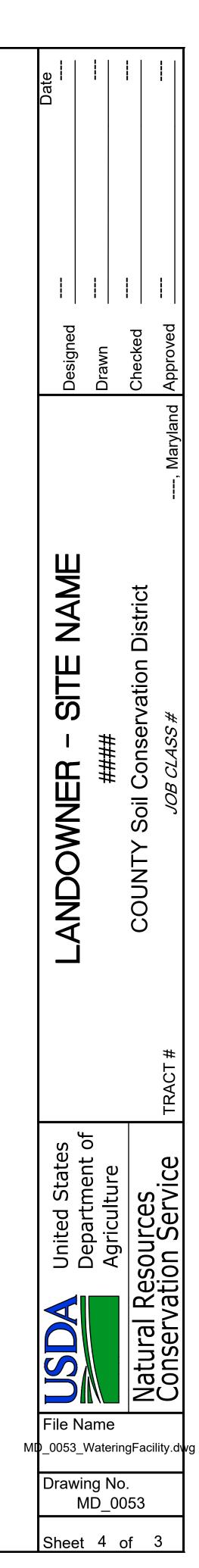
CLICK BLOCK AND ENTER INFO



department for materials and installation. Permits may be required for the installation of these systems. Contact the Permits Division of the local county government for regulations and permit requirements.

GRAVITY FED TROUGH CONCRETE WATER COLLECTION WITH BYPASS PIPE Not to scale

CLICK BLOCK AND ENTER INFO



6' Min extent of pad on all sides by others -Fasten trough to concrete pedestal 6GA 6" x 6" Welded wire mesh 2% Slope to assure (WWM) with minimum 2" cover positive drainage of concrete on all sides -Stone dust or equal 🗓 5"-3500 psi Concrete Min pad size Filter cloth #57 stone or equal as determined by (min Class SE) -Insulation material manufacturer provided in kit Min. 12" Corrugated Polyethylene drainage tubing or manufacturer's Insulated heat tube surrounding waterline to minimum depth of 3' or to horizontal supply line 90° PVC Electrician's sweep to — _____PSI pipe water supply lineextend beyond HUA pad

CONSTRUCTION NOTE:

This standard detail is based on installation of a pressure fed waterer. All troughs eligible for use must meet or exceed NRCS Practice Standard and Specifications for 614 trough or tank. All manufacturer's recommendations and specifications shall be followed during installation, regardless of the specific trough purchased.

INSTALLATION NOTES:

Pour concrete

Complete installation

Set trough

Grade pad for trough and install inlet pipe, including elbows

Grade around all facilities as necessary to maintain positive

drainage and spread spoil as directed by landowners

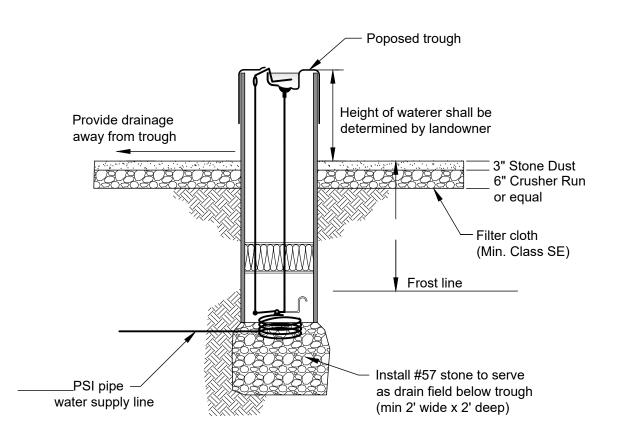
Backfill with #57 stone around trough location and grade stone

- 1. Exact location of supply line to be determined during construction by the landowner and soil conservation district
- All lines to have a min 24" cover All concrete apron must have 6 gauge 6"x6" Welded Wire Mesh (WWM)
- All concrete to be a minimum 3500 psi with 5% air entrainment and a slump of 3-5 inches.
- Install backflow preventer if water is supplied from potable

water source PRESSURE FED TROUGH **GRAVEL HUA**

CLICK BLOCK AND ENTER INFO

Not to scale



CONSTRUCTION NOTE

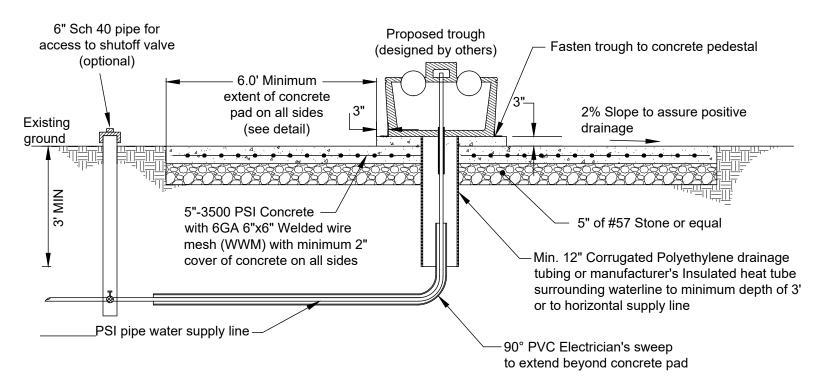
This standard detail is based on installation of a Bar-Bar-A Frost Free Waterer and does not preclude the use of other models or troughs by other manufacturers. All components as shown above may not be compatible with such models. All troughs eligible for use must meet or exceed NRCS Practice Standard and Specifications for 614 Trough or Tank. All manufacturers recommendations and specifications shall be followed during installation, regardless of the specific trough used.

- 2. Min 32" depth for supply line 3. Supply line may be 1" or $1\frac{1}{4}$ " diameter solid
- polyethylene pipe 4. Working pressure of pipe should not exceed 4. Compact material around pipe to assure stability 72% of the pressure rating of the pipe
- Velocity shall not exceed 5ft/sec 6. Install backflow preventer if water is supplied
- Installation notes: 1. Backfill material must be free of any rocky 1. Grade pad for trough and install inlet pipe, including elbows
 - 2. Backfill with #57 stone or Crusher Run at trough location and grade stone
 - Set trough
 - Complete installation 6. Grade around all facilities as necessary to
 - maintain positive drainage and spread spoil as directed by landowners from potable water source

CLICK BLOCK AND ENTER INFO

PRESSURE FED TROUGH - BAR-BAR

PRESSURE FEED SYSTEMS



CONSTRUCTION NOTE:

All lines to have a min 24" cover

This standard detail is based on installation of a pressure fed waterer. All troughs eligible for use must meet or exceed NRCS Practice Standard and Specifications for 614 trough or tank. All manufacturer's recommendations and specifications shall be followed during installation, regardless of the specific trough purchased.

Installation notes:

Complete installation

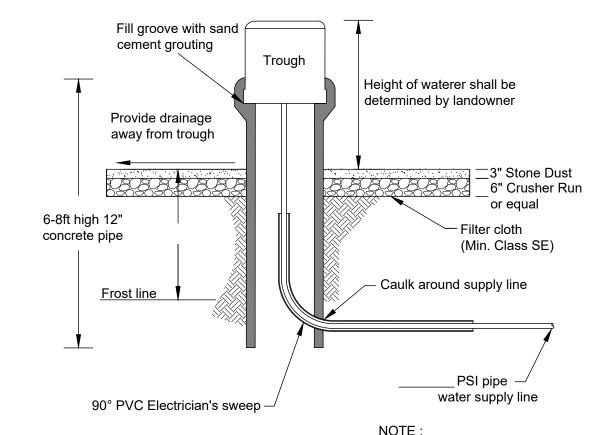
Backfill with #57 stone around trough location and grade

- 1. Exact location of supply line to be determined during construction by 1. Grade pad for trough and install inlet pipe, including elbows the landowner and soil conservation district
- Concrete apron must have 6 gauge 6"x6" welded wire mesh (wwm) 3. Pour concrete Concrete to be minimum 3500 psi with 5% air entrainment and a slump4. Set trough of 3-5 inches.
- Install backflow preventer if water is supplied from potable water

Grade around all facilities as necessary to maintain positive drainage and spread spoil as directed by landowners PRESSURE FED TROUGH **CONCRETE HUA**

CLICK BLOCK AND ENTER INFO

Not to scale



Mount waterer onto concrete pipe with provided bolts from manufacturer

This standard detail is based on installation of a pressure fed waterer. All troughs eligible for use must meet or exceed NRCS Practice Standard and Specifications for 614 trough or tank. All manufacturer's recommendations and specifications shall be followed during installation, regardless of the specific trough purchased.

1. Backfill material must be free of any rocky

CONSTRUCTION NOTE:

Min 32" depth for supply line Supply line may be 1" or $1\frac{1}{4}$ " diameter solid polyethylene pipe

from potable water source

- 72% of the pressure rating of the pipe Velocity shall not exceed 5ft/sec 6. Install backflow preventer if water is supplied
- Installation notes: 1. Grade pad for trough and install inlet pipe,
- including elbows 2. Backfill with #57 stone or Crusher Run at trough location and grade stone Set trough
- Working pressure of pipe should not exceed 4. Compact material around pipe to assure stability Complete installation Grade around all facilities as necessary to
 - maintain positive drainage and spread spoil as directed by landowners

PRESSURE FED TROUGH **EQUINE** Not to scale

CLICK BLOCK AND ENTER INFO

 $\bar{\Box}$ NAME District SITE OWNER Ö States ment of United States Department Agriculture

File Name

MID_0053_WateringFacility.dvg Drawing No.

MD_0053

Sheet 4 of 3