



## **SECTION VIII**

### **SEDIMENT CONTROL DETAILS**

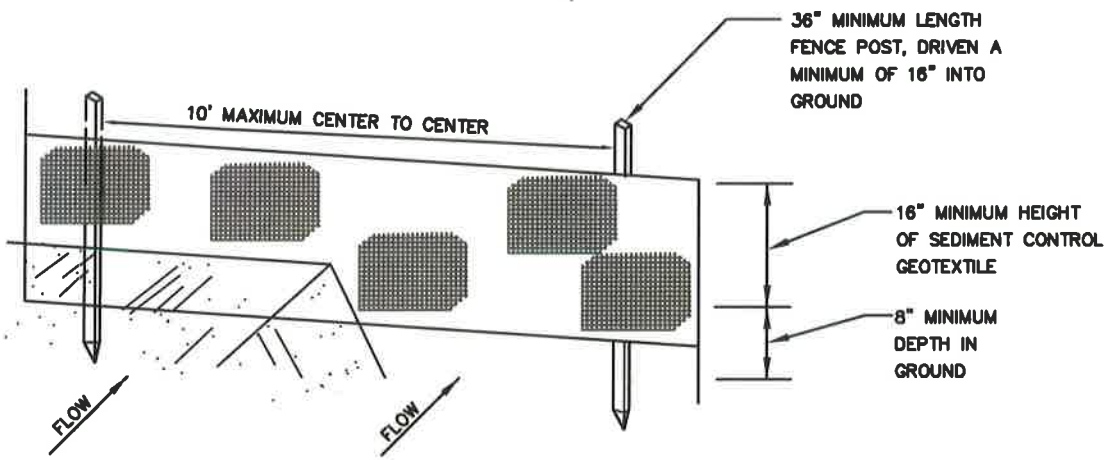
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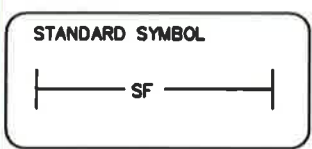


Tree Protection Details	SC/17.0
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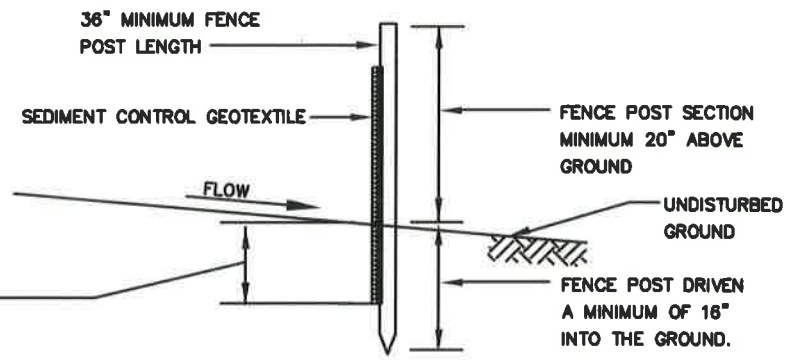




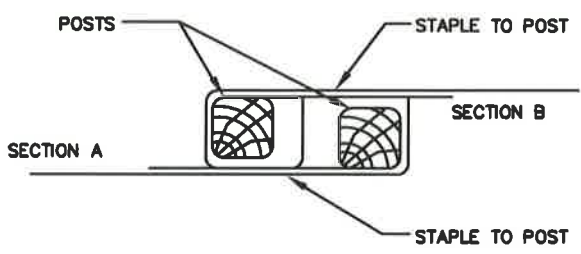
PERSPECTIVE VIEW



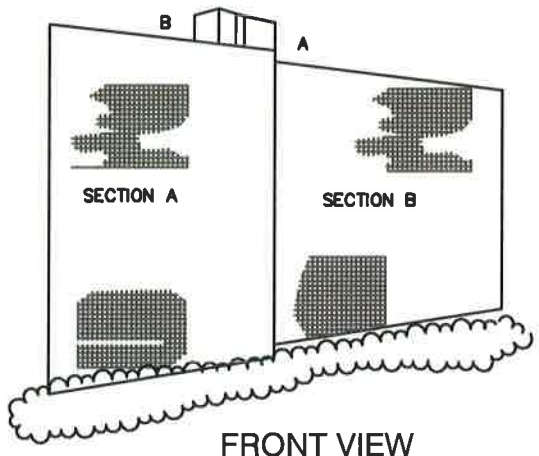
EMBED SEDIMENT CONTROL GEOTEXTILE A MINIMUM OF 8" VERTICALLY INTO THE GROUND



CROSS SECTION



TOP VIEW



FRONT VIEW

JOINING TWO ADJACENT SILT FENCE SECTIONS

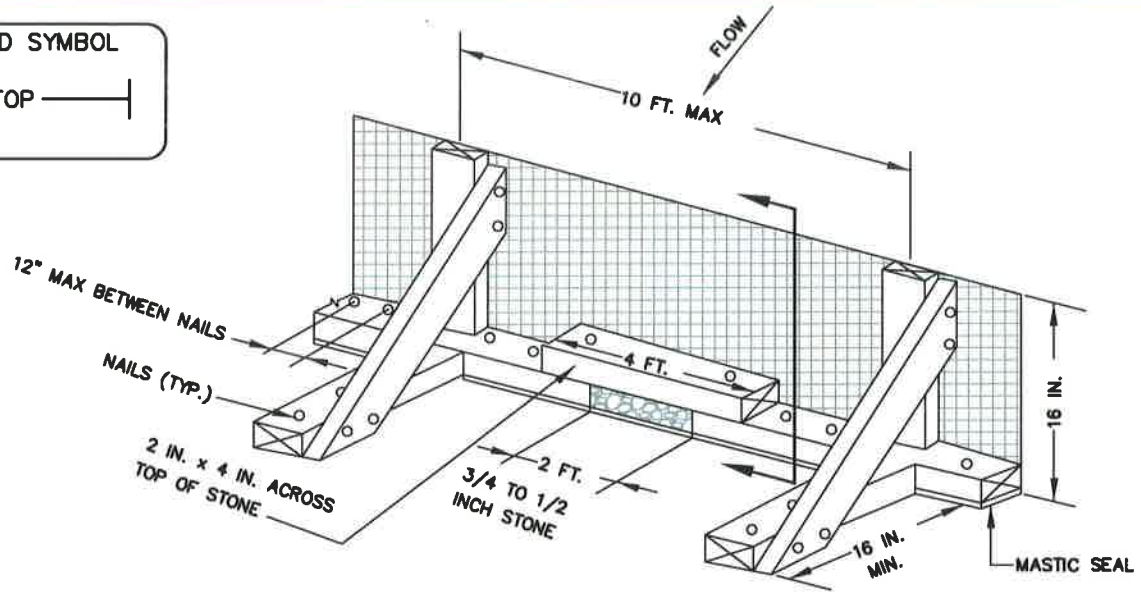
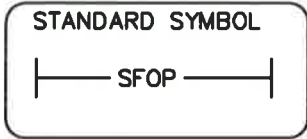
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APPROVED: 8/18/16

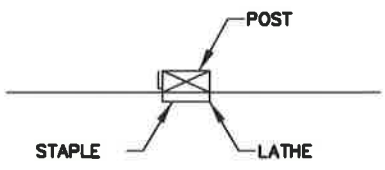
Chief Engineer

STANDARD DETAIL  
SILT FENCE

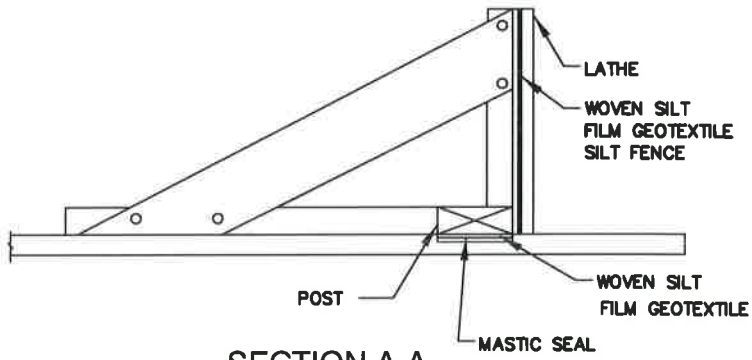
SC  
1.0



ISOMETRIC VIEW



JOINING ADJACENT SECTIONS OF GEOTEXTILE



SECTION A-A

NOTES:

1. USE NOMINAL 2-INCH x 4-INCH LUMBER.
2. USE WOVEN SEDIMENT CONTROL GEOTEXTILE FABRIC
3. SPACE UPRIGHT SUPPORTS NO MORE THAN 10 FEET APART.
4. PROVIDE A TWO FOOT OPENING BETWEEN EVERY SET OF SUPPORTS AND PLACE #57 GRADED STONE IN THE OPENING OVER GEOTEXTILE.
5. KEEP SILT FENCE TAUT AND SECURELY STAPLE TO THE UPSLOPE SIDE OF UPRIGHT SUPPORTS. EXTEND GEOTEXTILE UNDER 2x4.
6. WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, FOLD, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL. ATTACH A LATHE.
7. PROVIDE A MASTIC SEAL BETWEEN PAVEMENT, GEOTEXTILE, AND 2x4 TO PREVENT SEDIMENT-LADEN WATER FROM ESCAPING BENEATH SILT FENCE INSTALLATION.
8. SECURE BOARDS TO PAVEMENT WITH 40D 5-INCH MINIMUM LENGTH NAILS.
9. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. MAINTAIN WATER TIGHT SEAL ALONG BOTTOM. REPLACE STONE IF DISPLACED.

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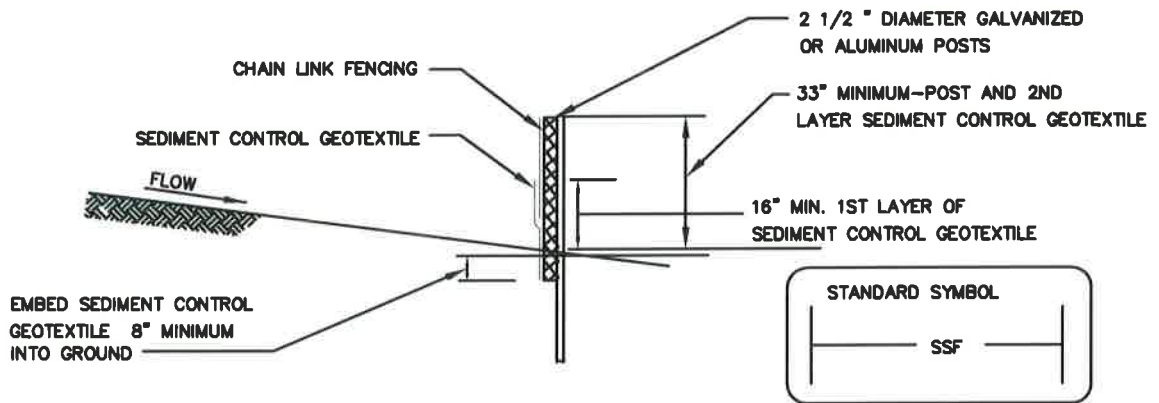
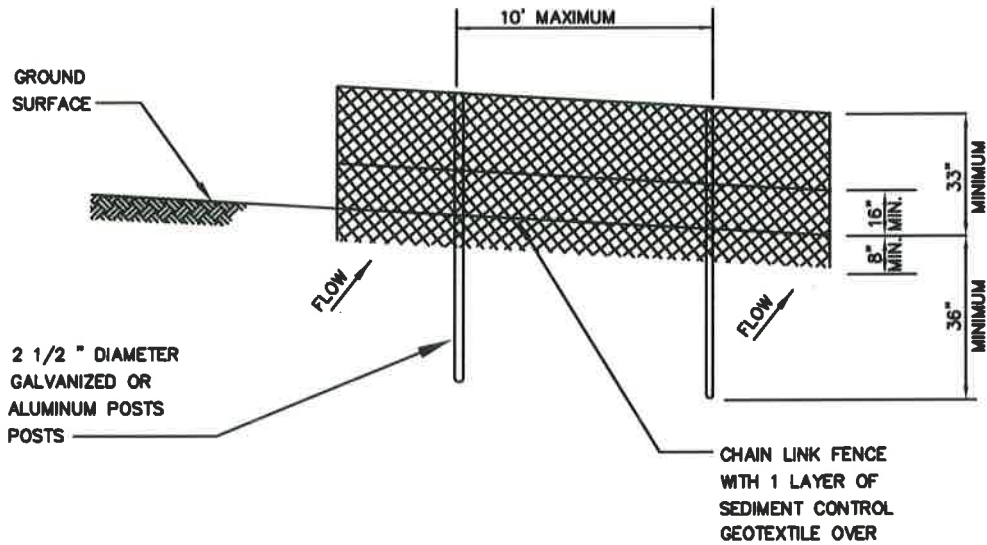
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Chief Engineer

STANDARD DETAIL  
SILT FENCE  
ON PAVEMENT


SC  
1.1

**NOTE:**

FENCE POST SPACING  
SHALL NOT EXCEED  
10' CENTER TO CENTER



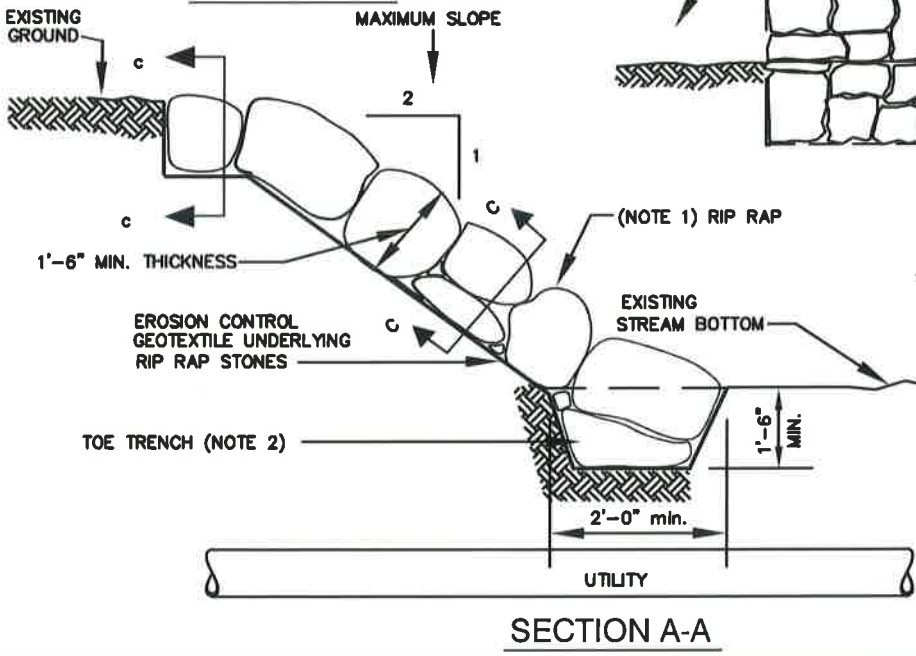
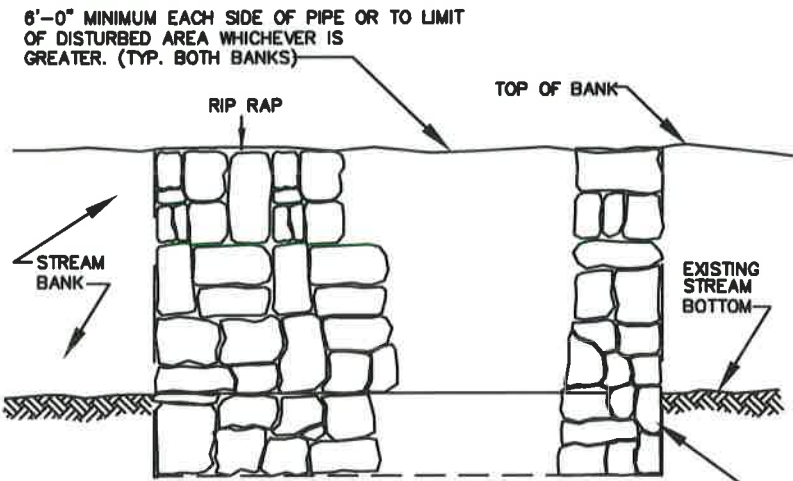
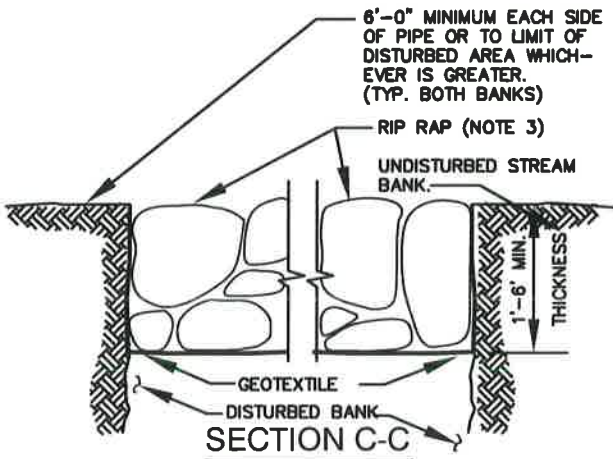
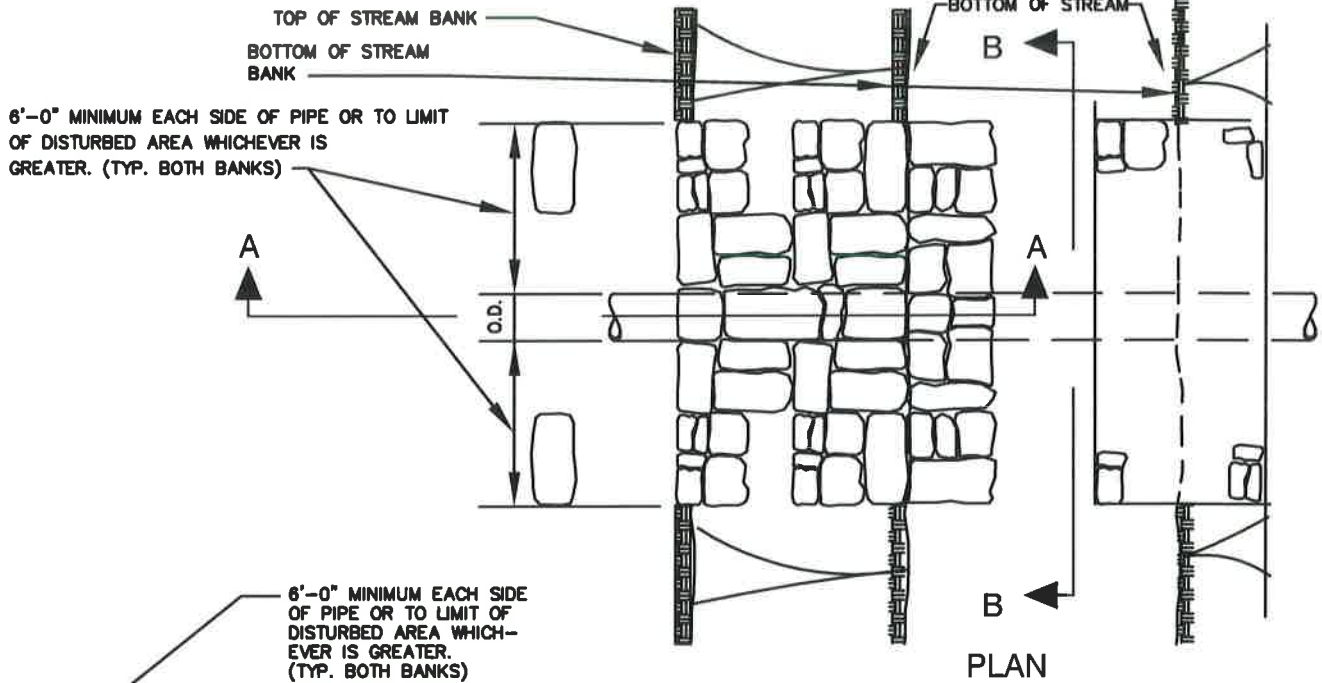
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STANDARD DETAIL

SUPER  
SILT FENCE

SC  
2.0



- NOTES:**
1. USE UNGROUTED CLASS 2 STONE UNLESS OTHERWISE NOTED.
  2. NO RIP RAP SHALL BE PLACED WITHIN 1' CLEAR ABOVE THE TOP OF THE PIPE.
  3. TOP OF THE RIP RAP SHALL BE FLUSH WITH THE EXISTING UNDISTURBED STREAM BANK.

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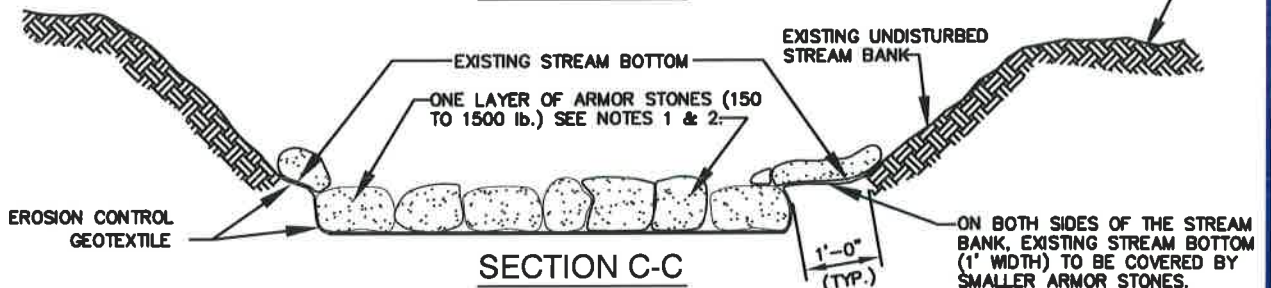
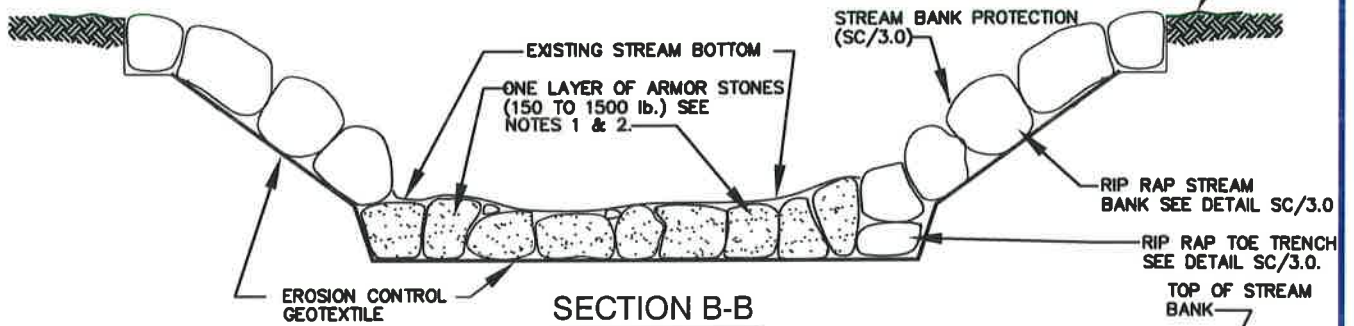
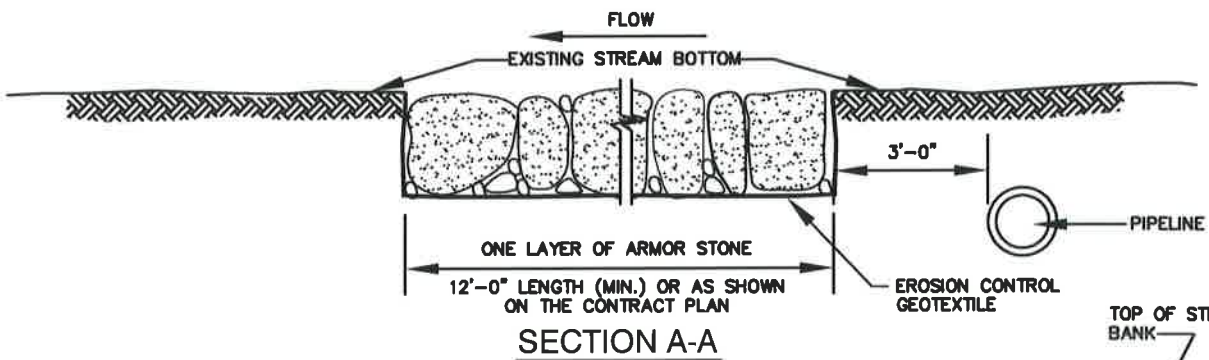
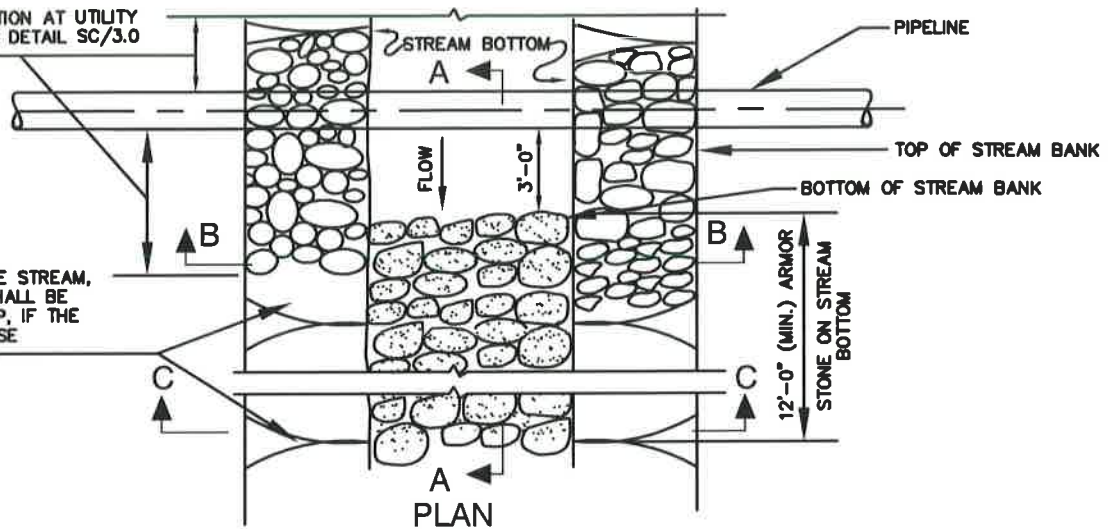
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STANDARD DETAIL  
**STREAM BANK  
PROTECTION AT UTILITY  
STREAM CROSSING**

SC  
3.0

STREAM BANK PROTECTION AT UTILITY  
STREAM CROSSING USE DETAIL SC/3.0  
(TYP. BOTH BANKS)

ON EITHER SIDE OF THE STREAM,  
THE CHANNEL BANK SHALL BE  
PROTECTED BY RIP RAP, IF THE  
BANK IS DISTURBED, USE  
SECTION B-B.



**NOTES:**

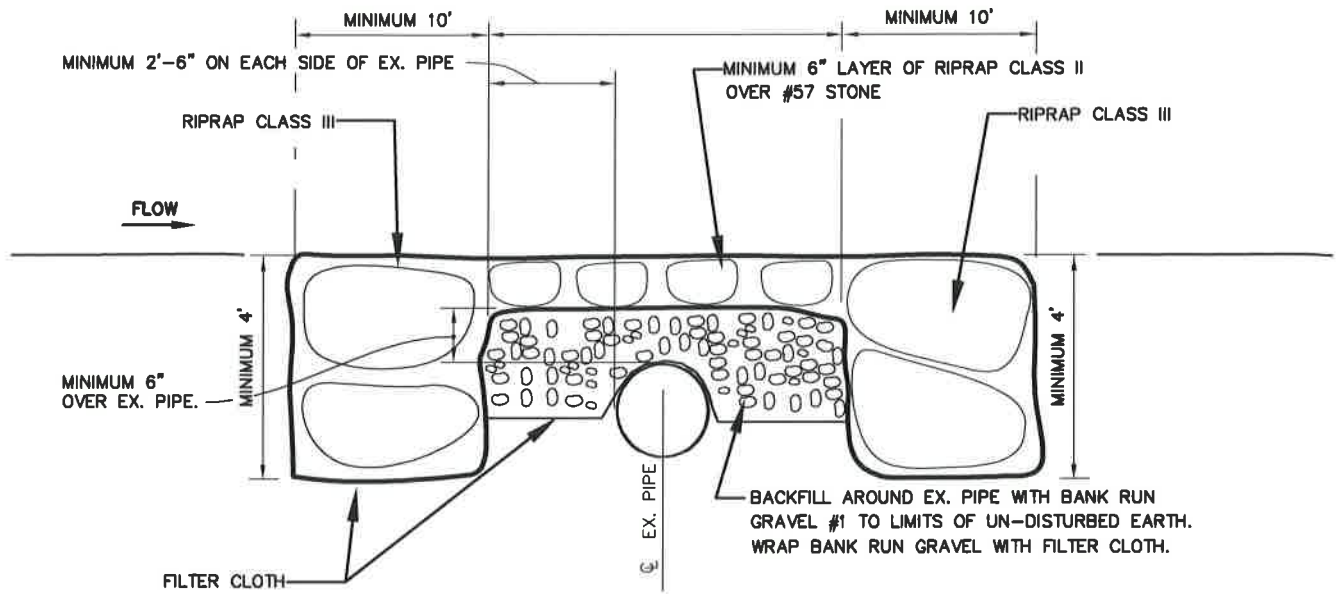
1. ARMOR STONES SHALL BE PLACED IN A MANNER TO PROVIDE A RELATIVELY EVEN STREAM BOTTOM WITH THE TOP OF STONE AT OR BELOW THE ORIGINAL STREAM BOTTOM.
2. ARMOR STONE SHALL BE REASONABLY WELL-GRADED FROM THE SMALLEST TO THE LARGEST SIZE SPECIFIED.

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STANDARD DETAIL  
STREAM INVERT  
PROTECTION FOR  
SHALLOW UTILITY  
STREAM CROSSING

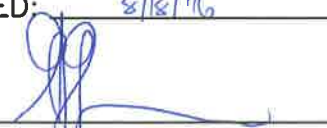
SC  
3.1



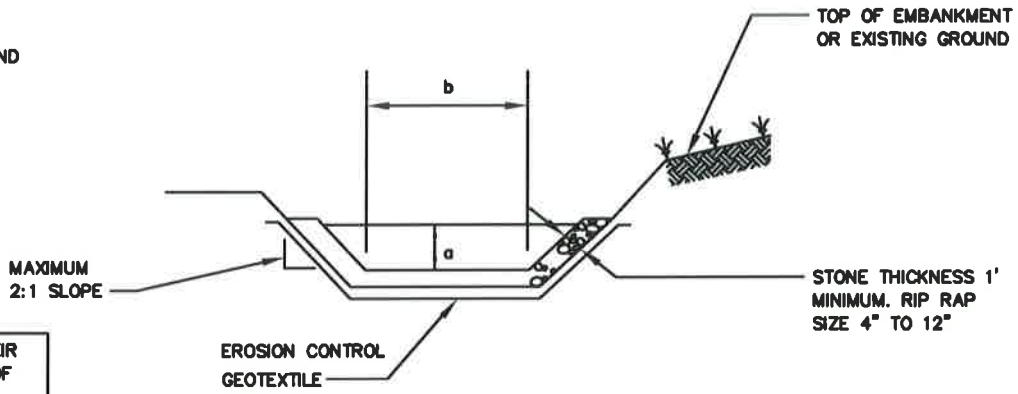
**NOTE:**

ALL STREAM RIP-RAP AND ARMOR STONE SHALL BE CLASS II OR III IMBRICATE ROCK.

**PIPE PROTECTION DETAIL**

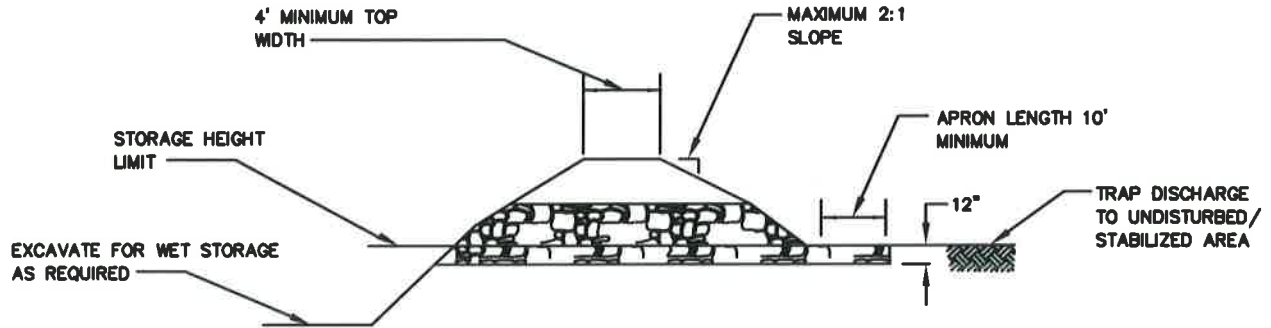
WASHINGTON SUBURBAN SANITARY COMMISSION	APPROVED: <u>8/18/16</u>  Chief Engineer	STANDARD DETAIL STREAM BANK PROTECTION AT EXIST. UTILITY STREAM CROSSING	SC 3.2
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TOP OF COMPACTED EMBANKMENT MINIMUM 1' ABOVE TOP OF STONE LINING, MAXIMUM 5' ABOVE EXISTING GROUND



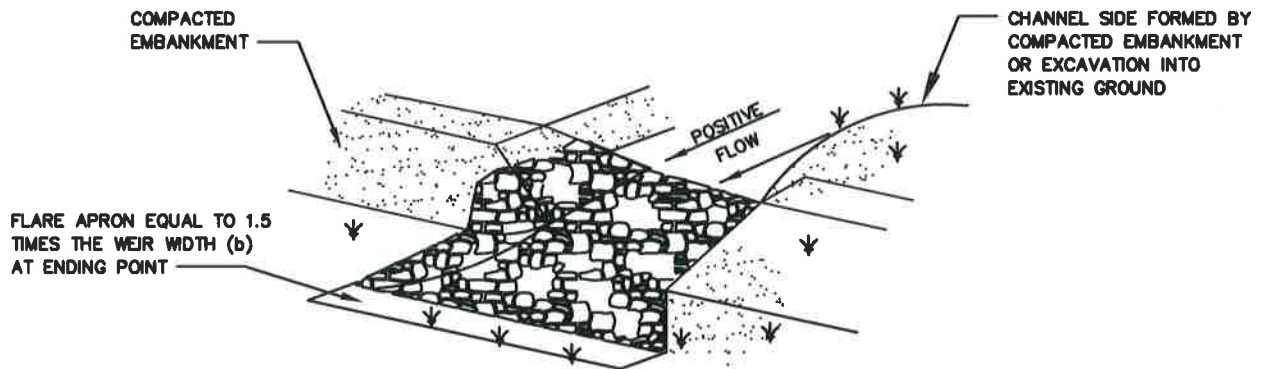
BOTTOM WIDTH OF WEIR (b) MINIMUM DEPTH OF CHANNEL (a)

CROSS SECTION



GEOTEXTILE SHALL BE EMBEDDED AT LEAST 6" INTO THE EXISTING GROUND AT ENTRANCE TO THE OUTLET CHANNEL


PROFILE



**ROST**

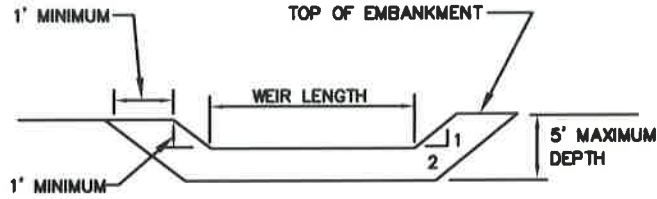
PERSPECTIVE

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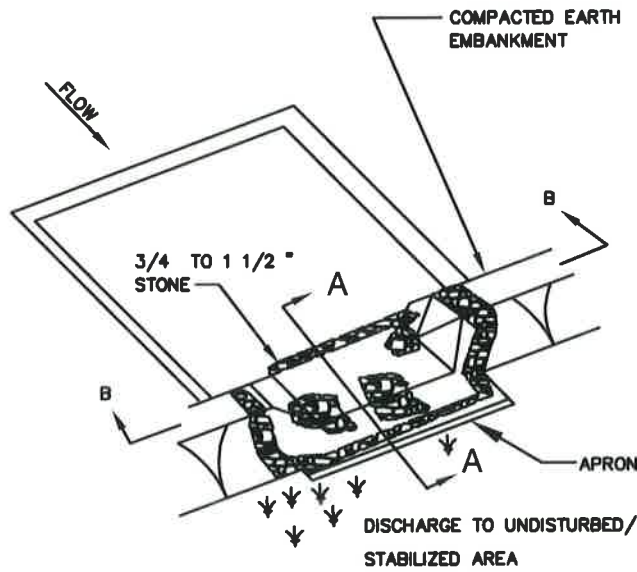
APPROVED: 8/15/76  
  
Chief Engineer

STANDARD DETAIL  
RIPRAP OUTLET  
SEDIMENT  
TRAP

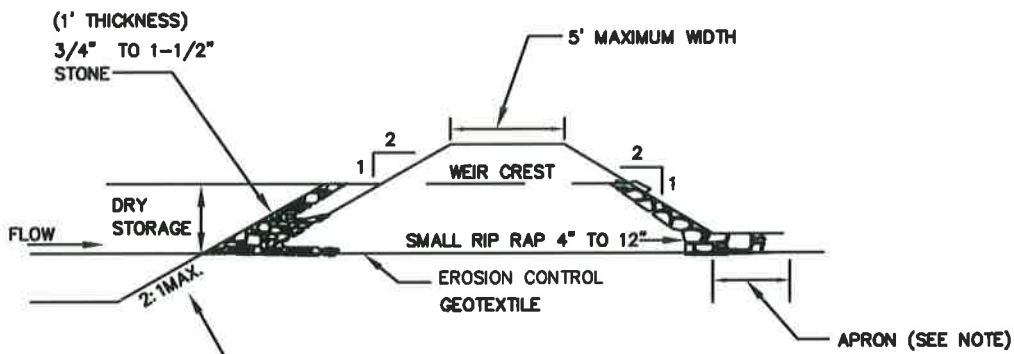
SC  
4.0



SECTION B-B



PERSPECTIVE VIEW



SECTION A-A

NOTE: 5' MINIMUM LENGTH UP TO 5 ACRES. OVER 5 ACRES USE 10' MIN.

SOST

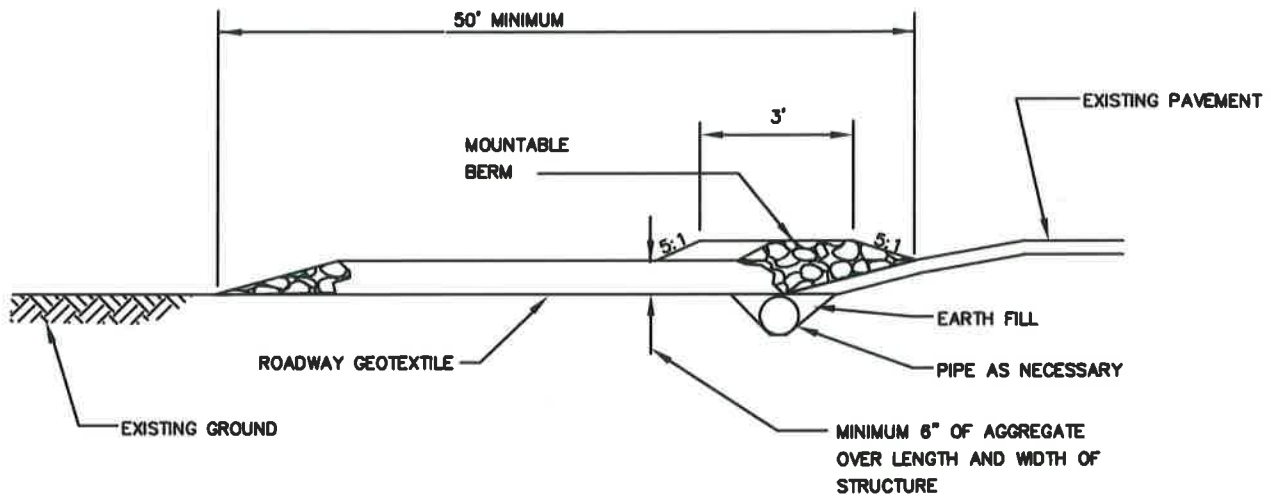
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Chief Engineer

STANDARD DETAIL  
STONE OUTLET  
SEDIMENT TRAP

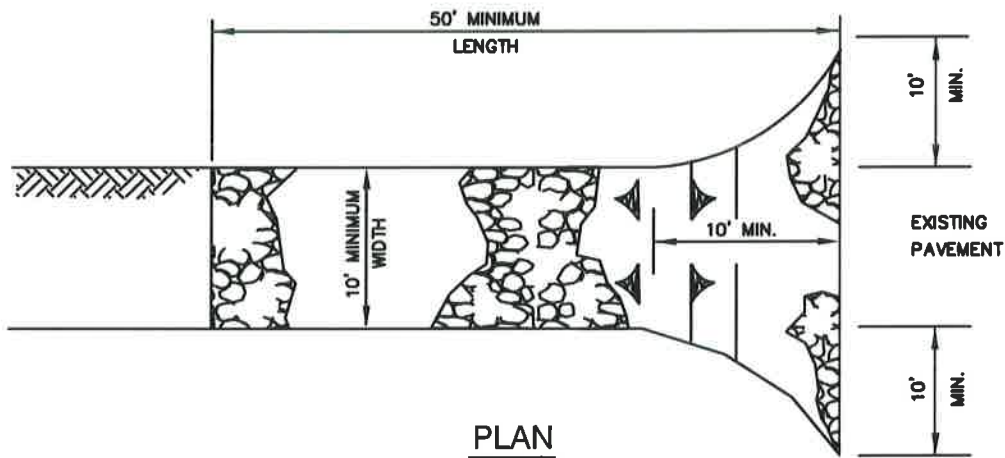
SC  
5.0



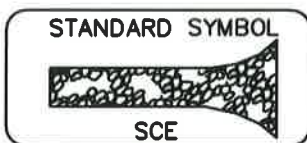


PROFILE

NOTE:  
FOR STONE SIZE SEE SPECIFICATIONS



PLAN



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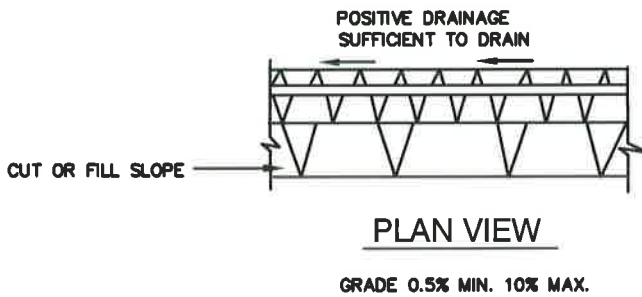
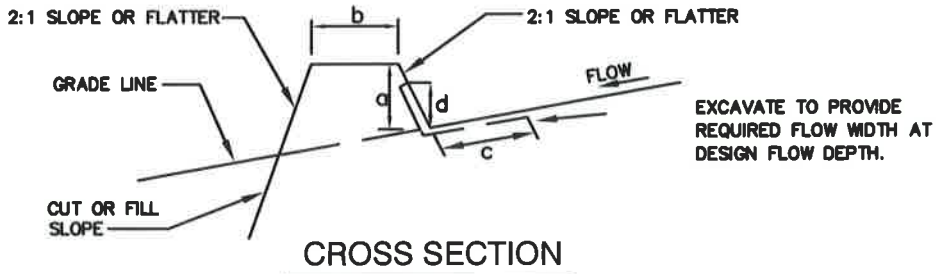
APPROVED: 8/12/16  
  
Chief Engineer

STANDARD DETAIL  
STABILIZED  
CONSTRUCTION  
ENTRANCE

SC  
7.0

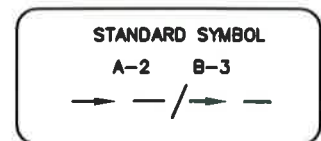
## STABILIZATION AS REQUIRED

	DIKE A (5AC OR LESS)	DIKE B (5-10AC)
a-DIKE HEIGHT	18"	30"
b-DIKE WIDTH	24"	36"
c-FLOW WIDTH	4'	6'
d-FLOW DEPTH	12"	24"



### FLOW CHANNEL STABILIZATION

1. SEED AND COVER WITH STRAW MULCH.
2. SEED AND COVER WITH EROSION CONTROL MATTING OR LINE WITH SOD.
3. LINE WITH EROSION CONTROL GEOTEXTILE AND CLASS I RIP-RAP OR RECYCLED CONCRETE EQUIVALENT.
4. (TYPE B ONLY) LINE WITH EROSION CONTROL GEOTEXTILE AND CLASS II RIP-RAP.

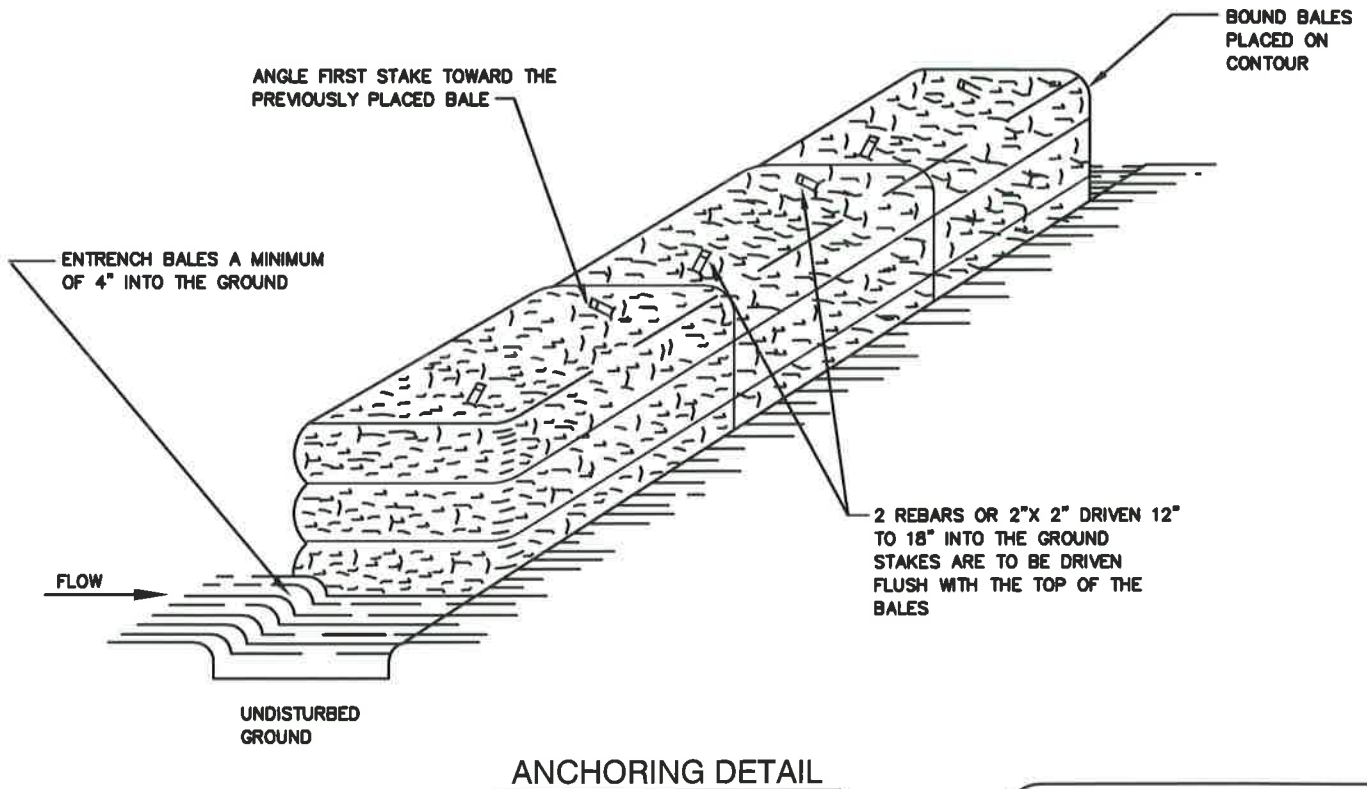
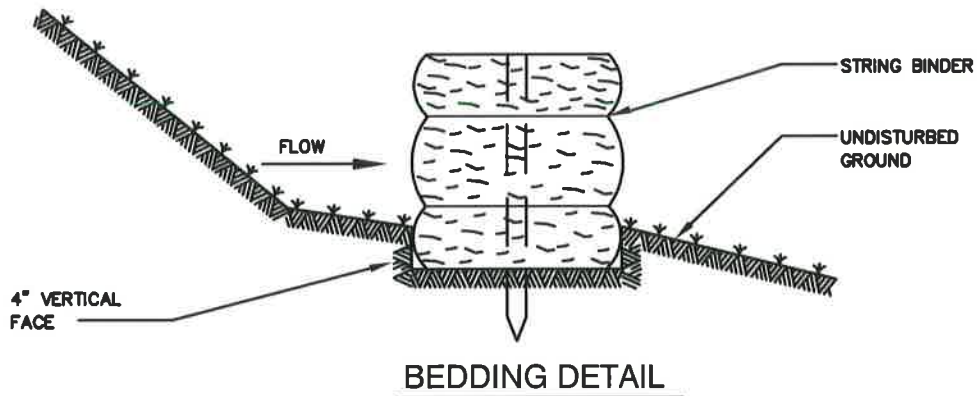


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STANDARD DETAIL  
  
EARTH DIKE

SC  
8.0

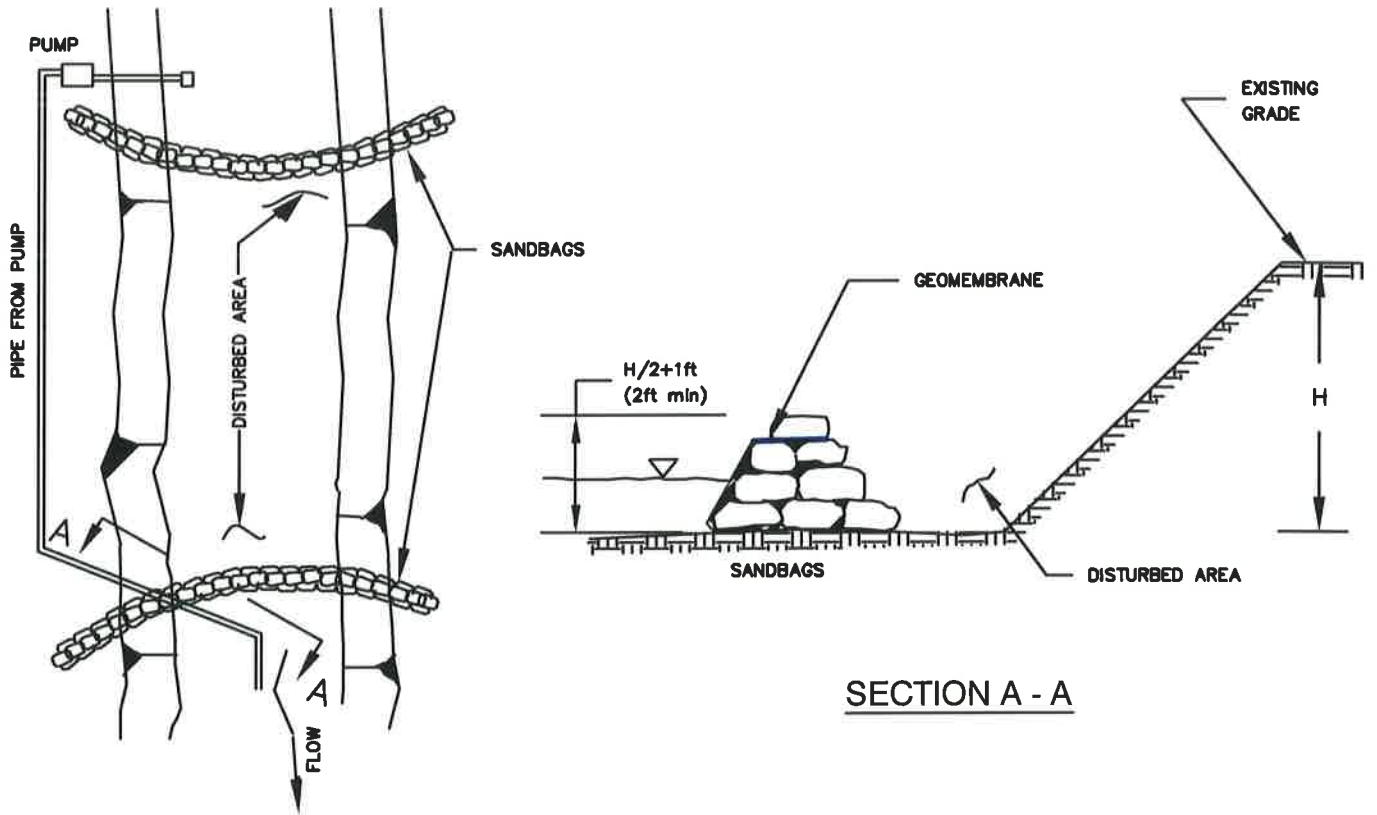


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STANDARD DETAIL  
**STRAW BALE DIKE**

SC  
9.0



PLAN VIEW

SECTION A - A

**I. DESCRIPTION**

THE WORK SHALL CONSIST OF INSTALLING A PUMP AROUND WHEN CONSTRUCTION ACTIVITIES TAKE PLACE WITHIN THE STREAM CHANNEL.


**II. MATERIAL SPECIFICATIONS**

**SANDBAGS:** SANDBAGS SHALL CONSIST OF MATERIALS WHICH ARE RESISTANT TO ULTRAVIOLET RADIATION, TEARING AND PUNCTURE, AND WOVEN TIGHTLY ENOUGH TO PREVENT LEAKAGE OF FILL MATERIAL (i.e., SAND, FINE GRAVEL ETC.).

**III. CONSTRUCTION REQUIREMENTS**

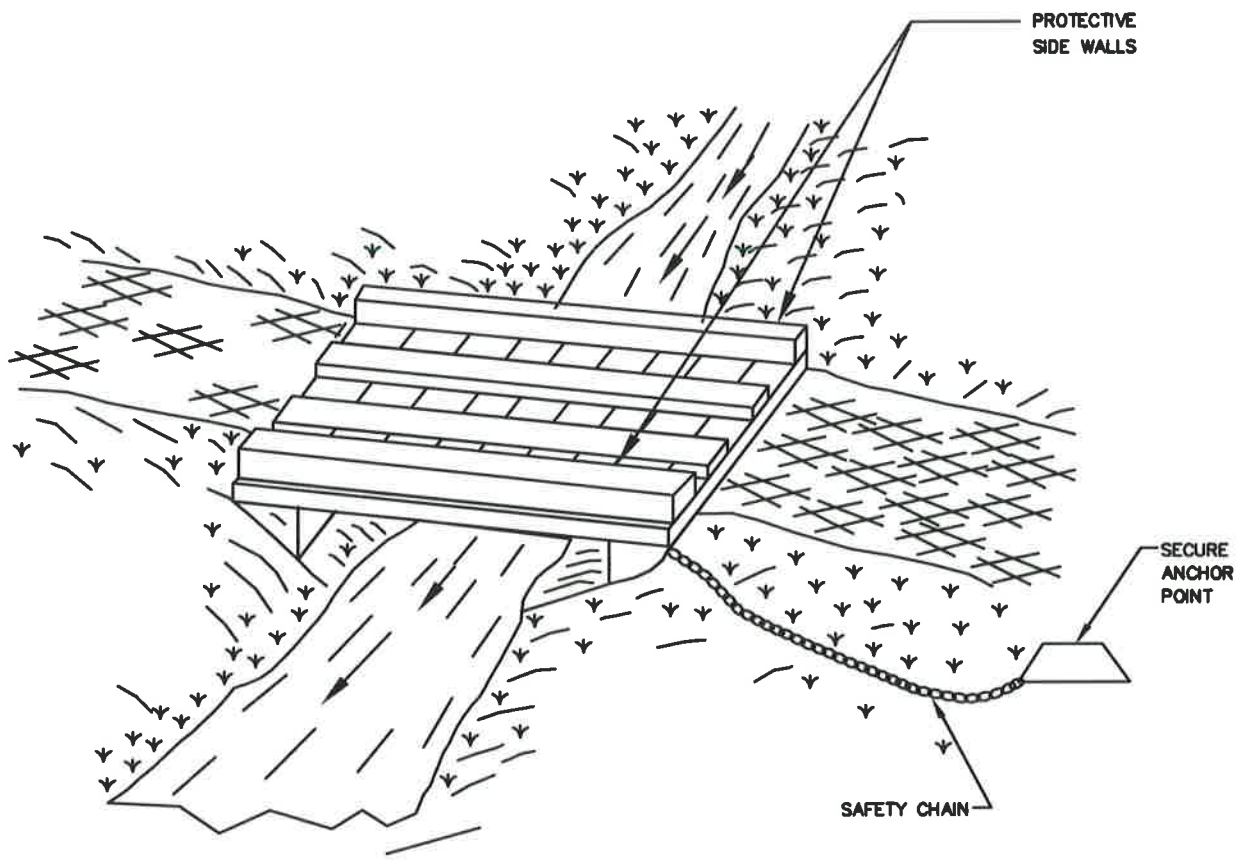
1. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED AS THE FIRST ORDER OF WORK.
2. THE HEIGHT OF THE SANDBAGS SHALL BE AS INDICATED IN SECTION A-A. THE SANDBAGS SHALL BE PLACED ON A SMOOTH PREPARED SURFACE.
3. ALL EXCAVATED MATERIALS SHALL BE DISPOSED OFF OUTSIDE THE 100 YEAR FLOOD PLAIN UNLESS APPROVED ON THE PLANS BY THE WRA.
4. ALL DEWATERING OF THE CONSTRUCTION AREA SHALL BE PUMPED TO A WRA APPROVED DEVICE.
5. THE PUMP SHALL BE OF SUFFICIENT SIZE TO CONVEY NORMAL STREAM FLOW.
6. SEDIMENT CONTROL DEVICES ARE TO REMAIN IN PLACE UNTIL ALL DISTURBED AREAS ARE STABILIZED AND THE INSPECTING AUTHORITY APPROVES THEIR REMOVAL.

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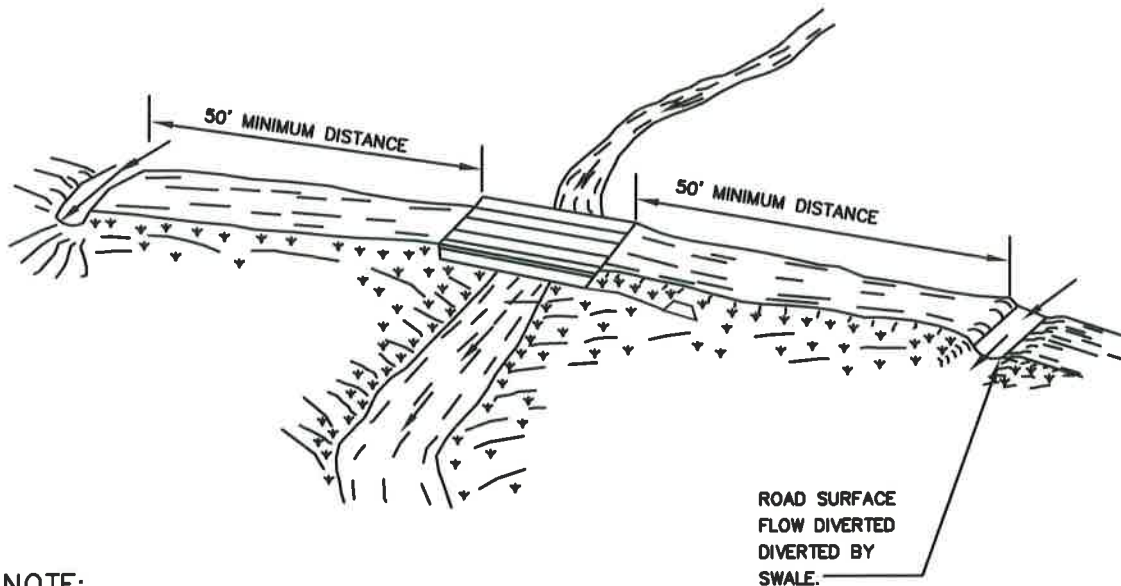
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STANDARD DETAIL  
STREAM PUMP AROUND

SC  
10.0



PERSPECTIVE VIEW



**NOTE:**

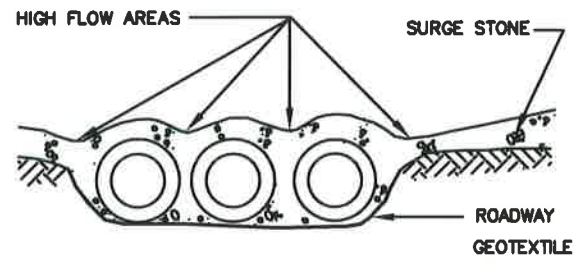
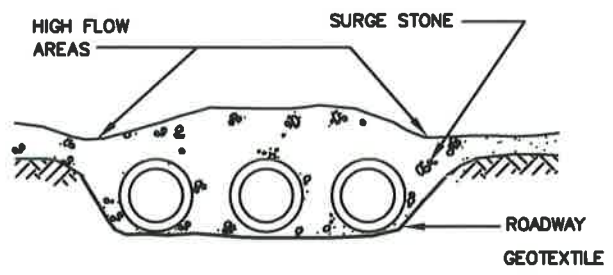
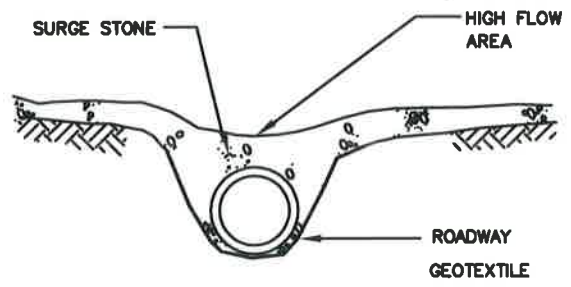
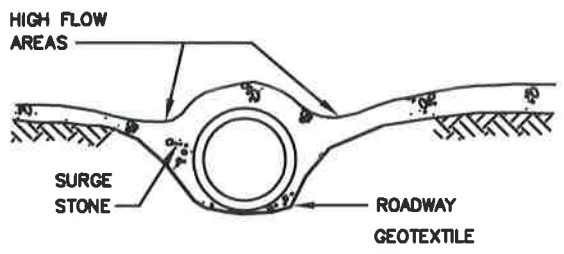
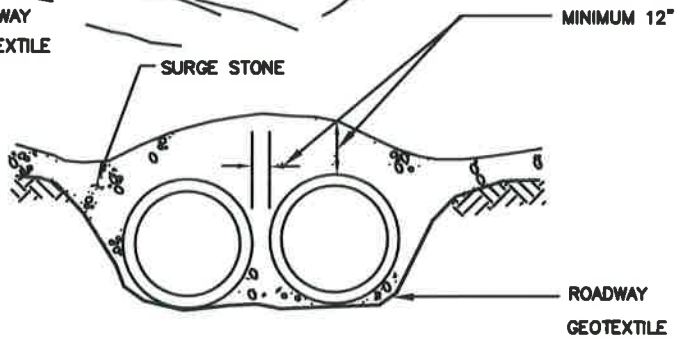
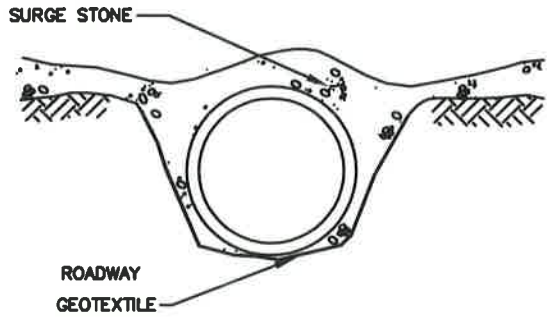
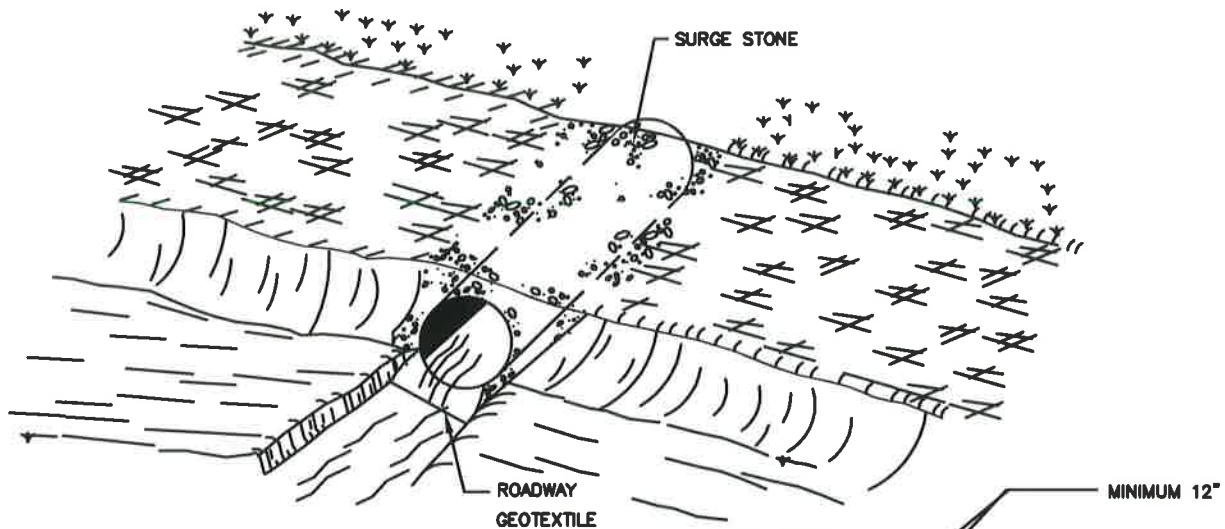
FOR BRIDGE REQUIREMENTS, SEE SPECIFICATIONS.

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STANDARD DETAIL  
TEMPORARY  
ACCESS BRIDGE

SC  
11.0



MULTIPLE PIPES

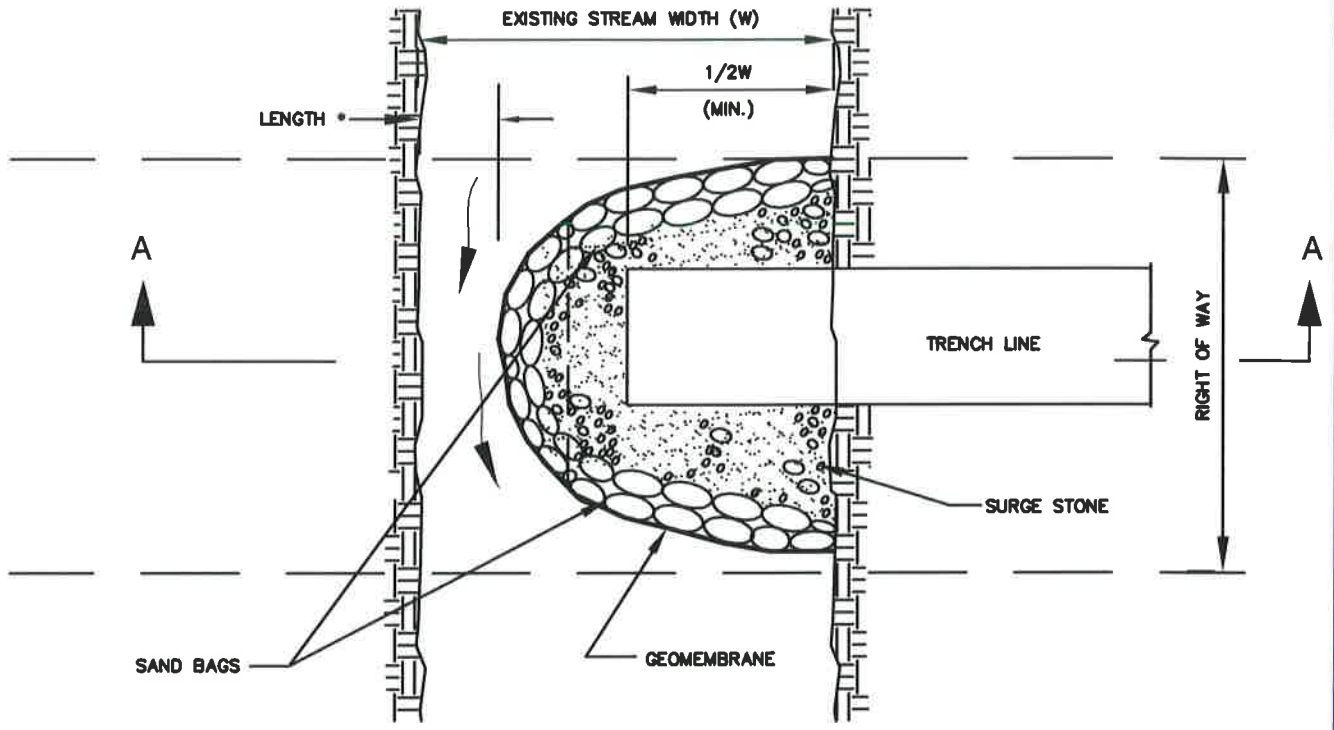
MULTIPLE PIPES

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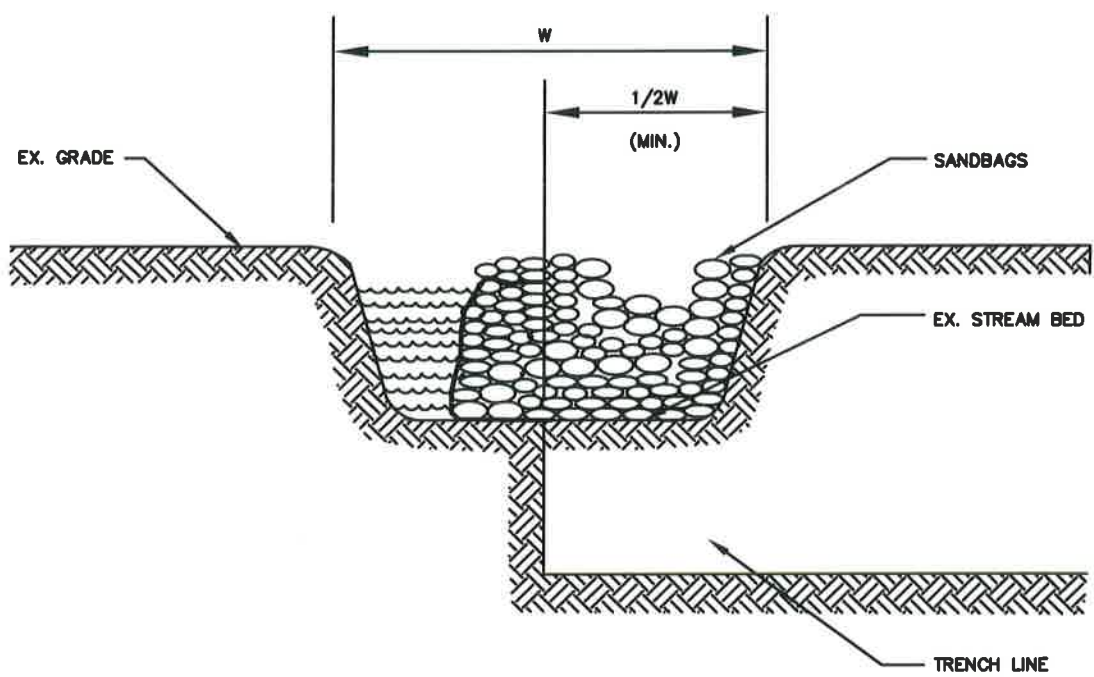
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Chief Engineer

STANDARD DETAIL  
TEMPORARY  
ACCESS CULVERT

SC  
12.0



PLAN



SECTION A-A

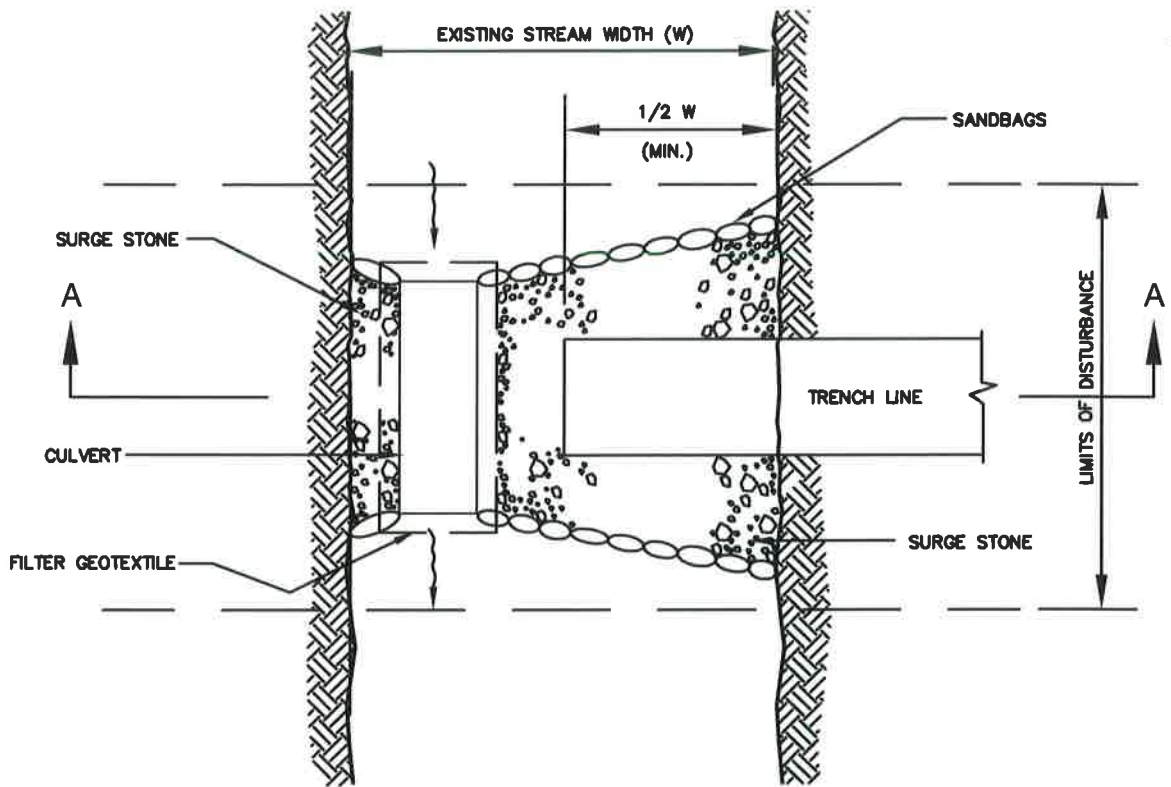
\* MINIMUM LENGTH TO BE 25% OF THE TOTAL WIDTH (W) OF THE STREAM.

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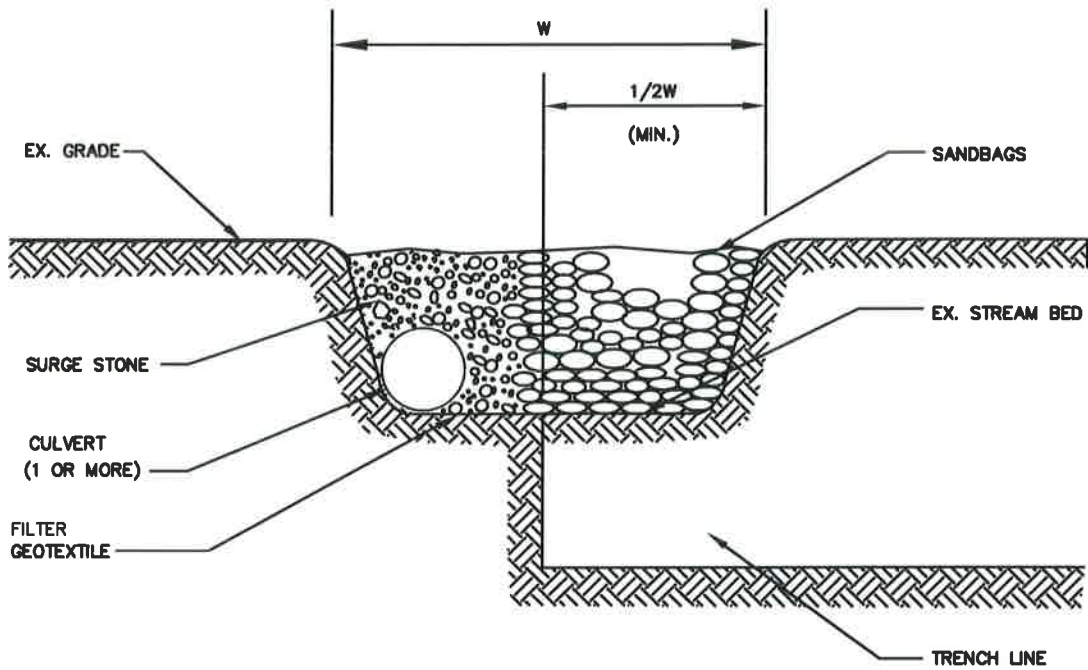
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STANDARD DETAIL  
OPEN  
DIVERSION

SC  
13.0



PLAN



SECTION A-A

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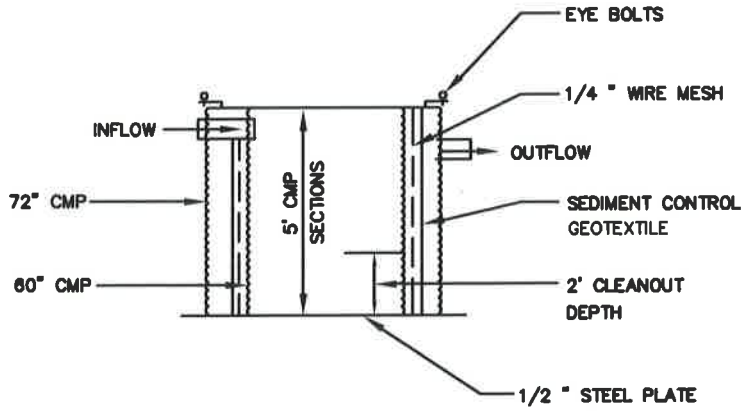
APPROVED: 8/18/16  
  
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STANDARD DETAIL

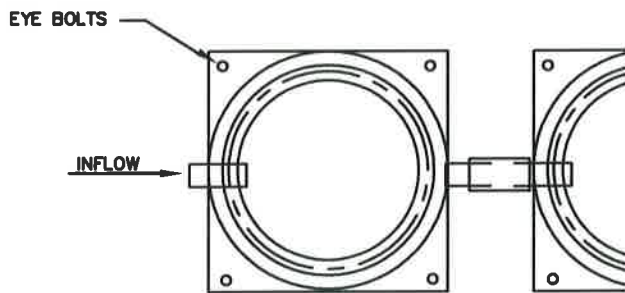
CULVERT  
DIVERSION

SC  
14.0

PERFORATE 60" CMP  
WITH 1" HOLES AT  
6" ON CENTER




ELEVATION



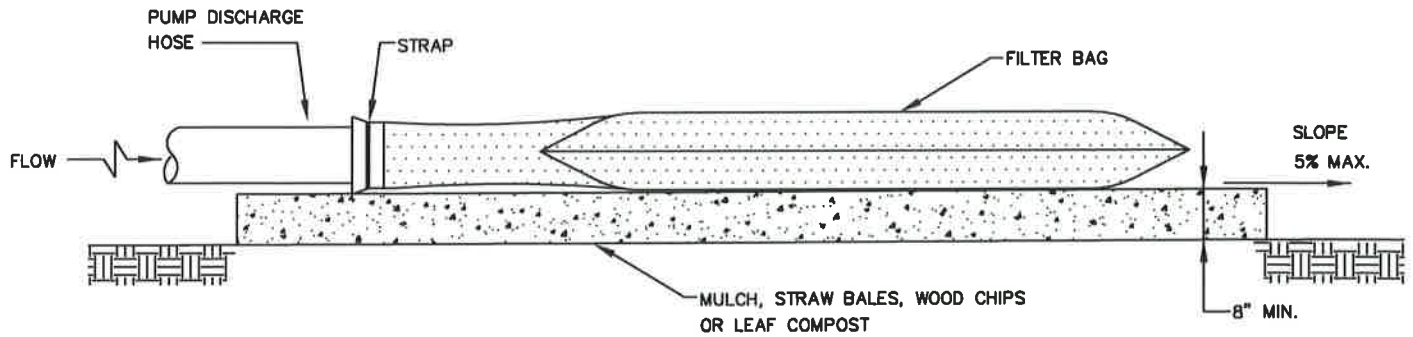
PLAN

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APPROVED: 8/18/16  
  
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STANDARD DETAIL  
PORTABLE  
SEDIMENT TANK


SC  
15.0

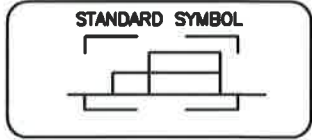
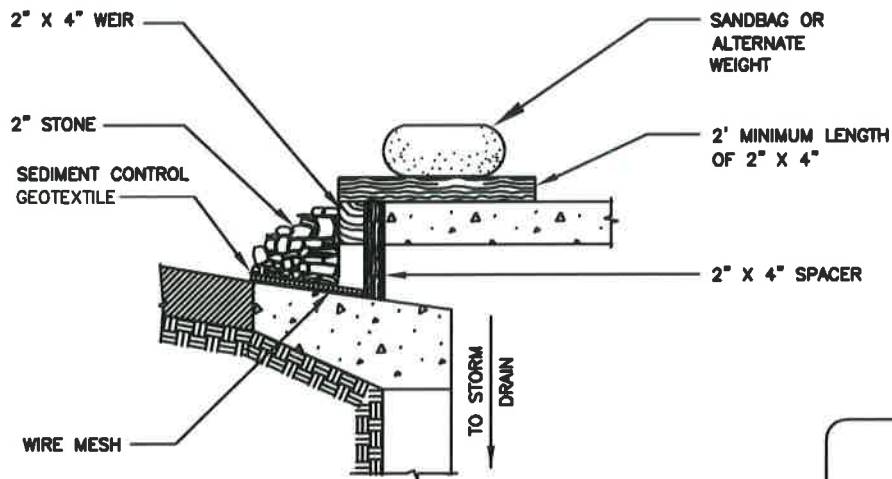


**FILTER BAG DETAIL**

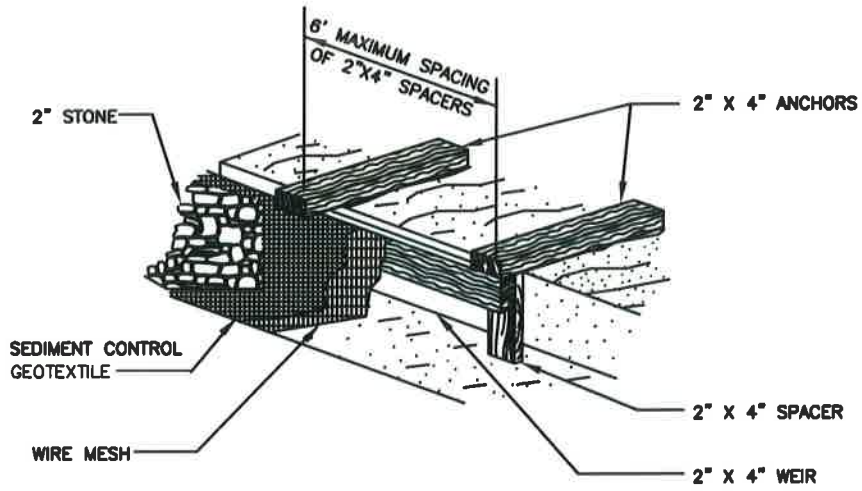
**NOTES:**

1. MATERIAL: SEDIMENT CONTROL GEOTEXTILE WITH A MINIMUM SURFACE AREA OF 225 SQUARE FEET PER SIDE.
2. SLEEVE SIZE TO ACCOMMODATE A 4" DIAMETER PUMP DISCHARGE HOSE.
3. TIGHTLY SEAL SLEEVE AROUND THE PUMP DISCHARGE HOSE WITH A STRAP OR SIMILAR DEVICE.
4. PLACE FILTER BAG UPON MULCH, STRAW BALES MATERIAL, LOCATED ON LEVEL OR GENTLY SLOPING (5% MAXIMUM) STABILIZED AREA.
5. CONTROL PUMPING RATE TO PREVENT EXCESSIVE PRESSURE WITHIN THE FILTER BAG. AS THE BAG FILLS WITH SEDIMENT, REDUCE PUMPING RATE.
6. DEWATER, REMOVE AND DISPOSE OF FILTER BAG UPON COMPLETION OF PUMPING OPERATIONS OR AFTER BAG HAS REACHED CAPACITY, WHICHEVER OCCURS FIRST. SPREAD THE DEWATERED SEDIMENT FROM BAG IN AN APPROVED UPLAND AREA AND STABILIZE BY THE END OF THE WORK DAY. RESTORE SURFACE AREA BENEATH BAG TO ORIGINAL CONDITION UPON REMOVAL OF THE DEVICE.

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CROSS SECTION



PERSPECTIVE VIEW

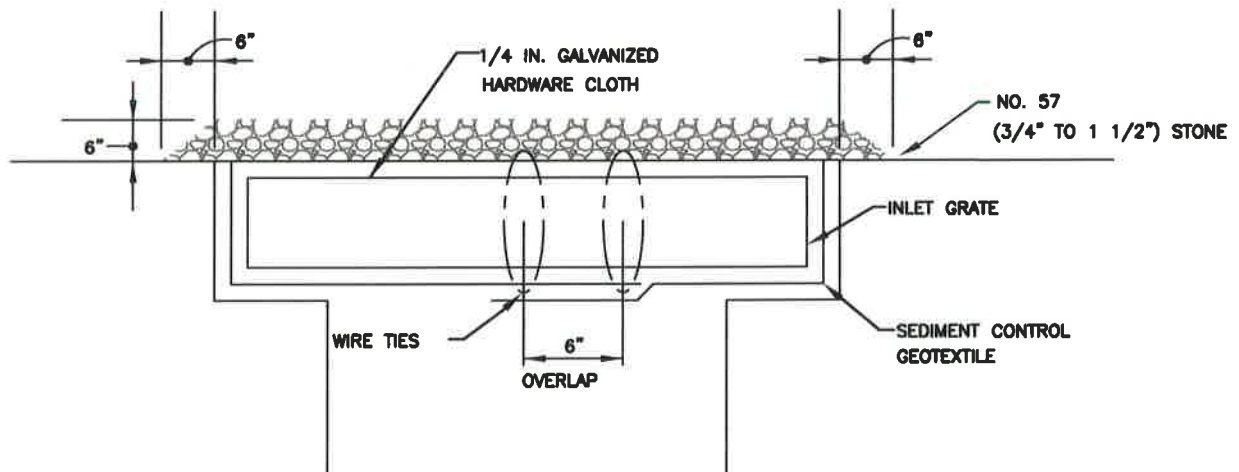
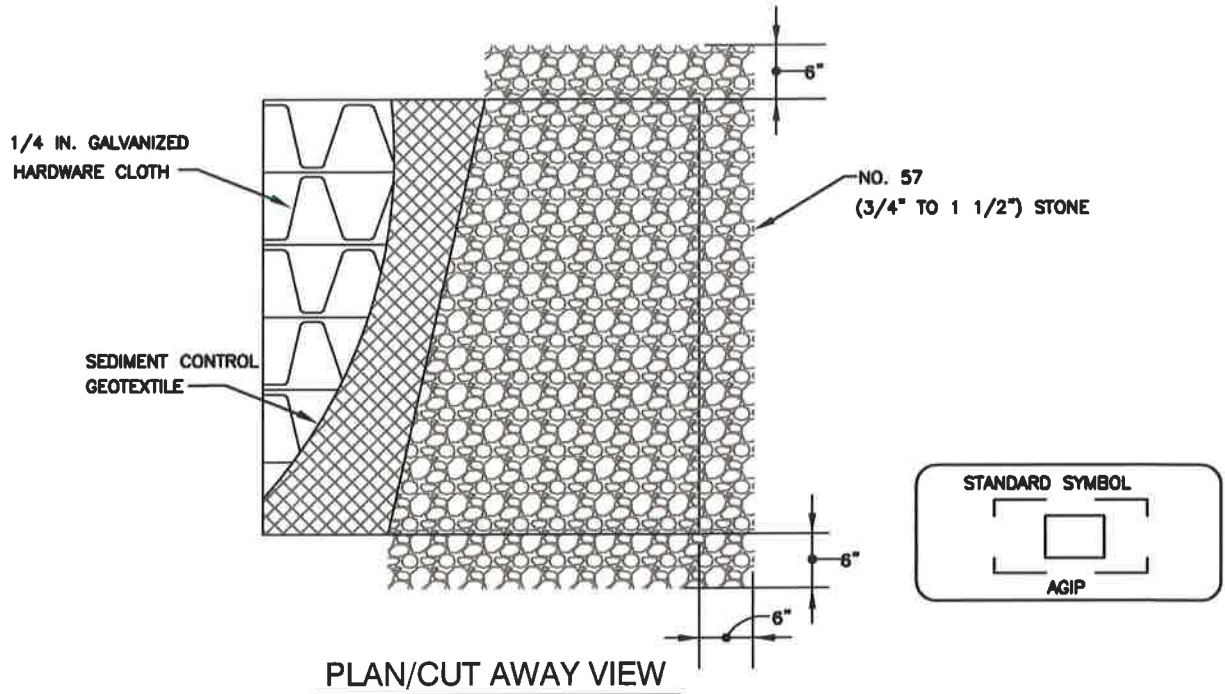
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STANDARD DETAIL  
  
CURB INLET  
PROTECTION DETAIL

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MAXIMUM DRAINAGE AREA = 1 ACRE



**NOTES:**

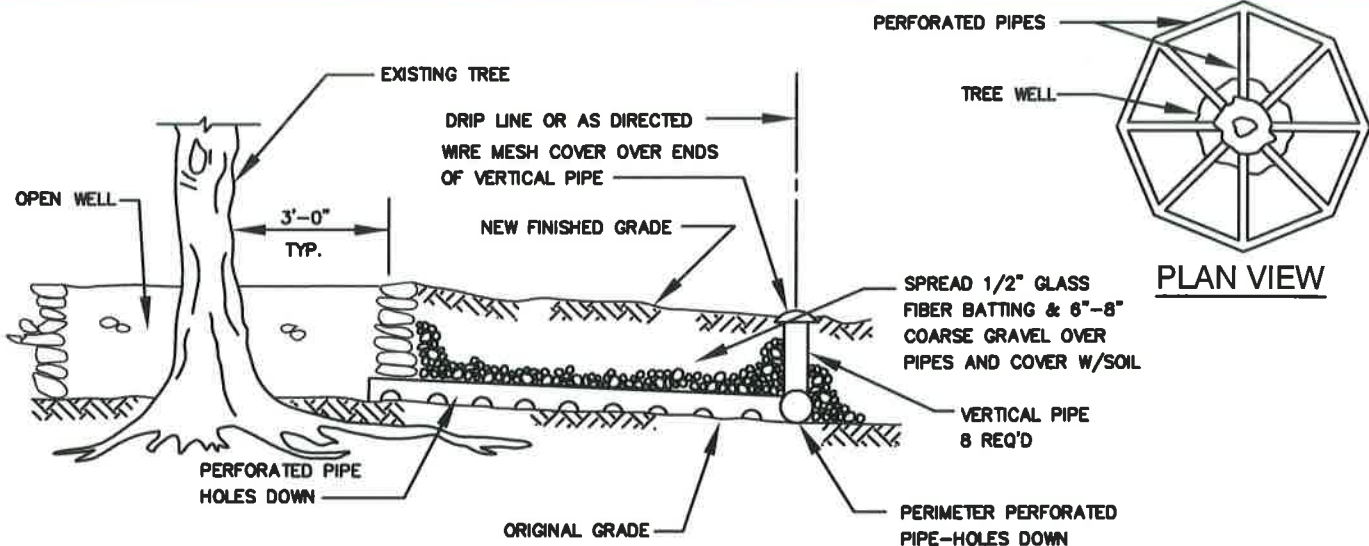
1. LIFT GRATE AND WRAP WITH GEOTEXTILE TO COMPLETELY COVER ALL OPENINGS. SECURE WITH WIRE TIES AND SET GRATE BACK IN PLACE.
2. PLACE 3/4" TO 1 1/2" STONE, 6" THICK ON THE GRATE TO SECURE THE GEOTEXTILE AND PROVIDE ADDITIONAL FILTRATION.

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STANDARD DETAIL  
AT-GRADE INLET  
PROTECTION DETAIL

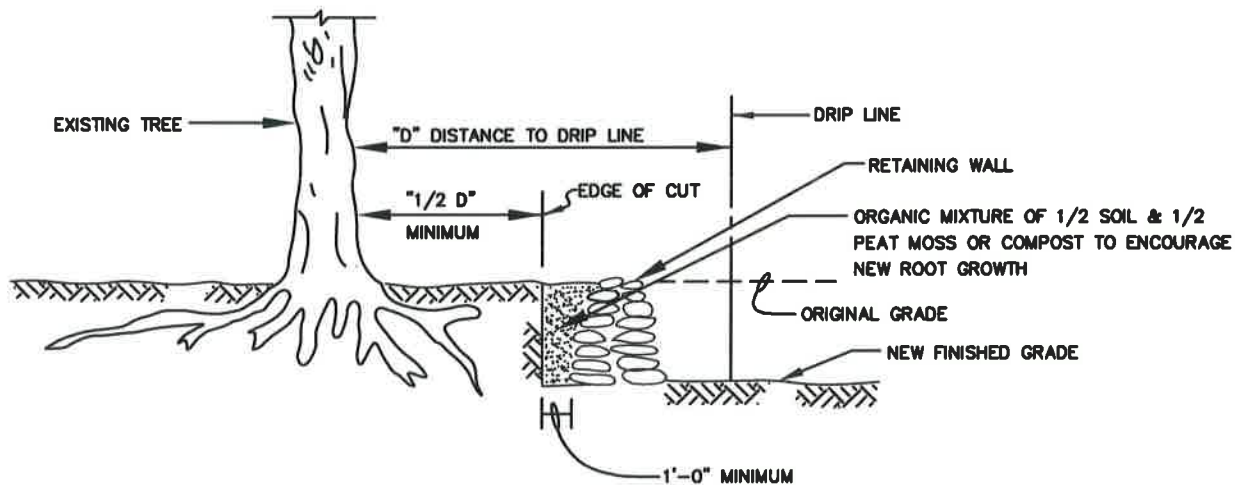
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**PERMANENT TREE PROTECTION DETAIL (TREE WELL)**

(WHEN FINISHED GRADE IS 1'-0" OR MORE ABOVE EXISTING GRADE)

NOTE: WELL TO BE CONSTRUCTED OF STONE OR BRICK(ALL HEADERS). IF BRICK IS USED, VERTICAL JOINTS TO BE LEFT OPEN FOR DRAINAGE 1/2" MAXIMUM INSIDE FACE OF WALL.



**PERMANENT TREE PROTECTION DETAIL(GROUND LOWERING)**

(WHEN FINISHED GRADE IS GREATER THAN 6" BELOW EXISTING GRADE)

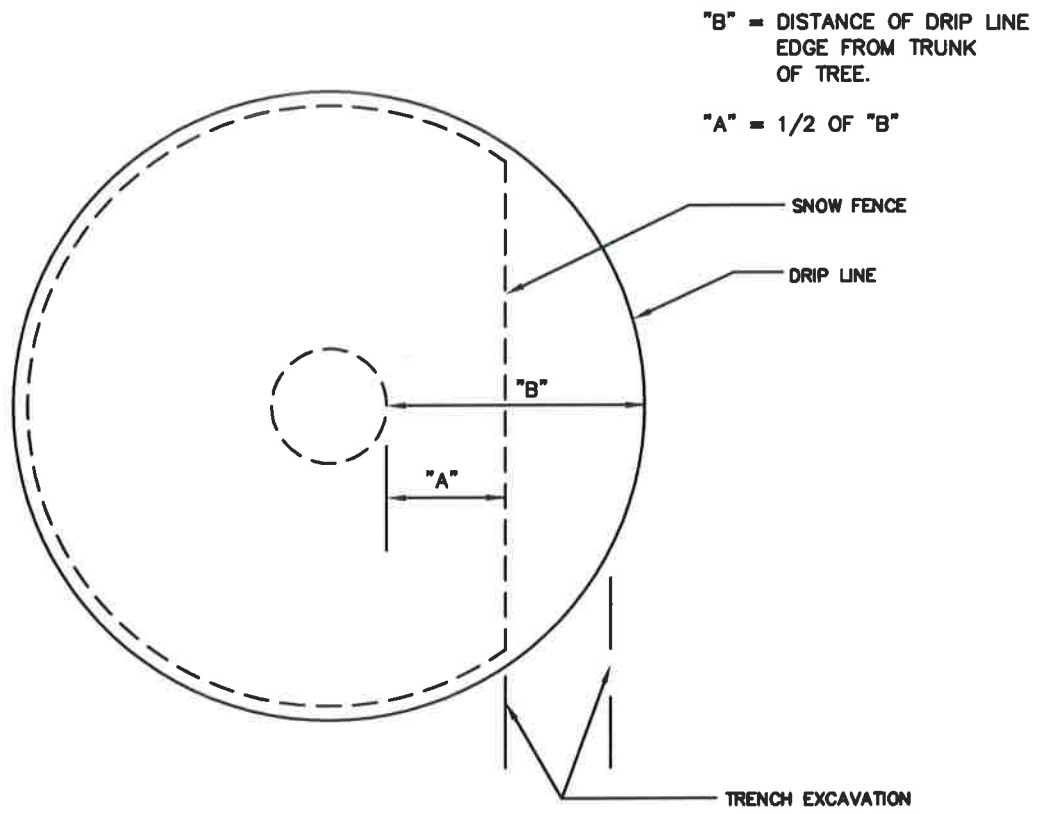
NOTE: (1) PRUNE BRANCHES OF TREE AS REQUIRED TO COMPENSATE FOR LOST ROOTS.  
 (2) IF MORTAR USED IN WALL CONSTRUCTION PROVIDE 1" Ø WEEP HOLES 2'-0" c/c BASE OF WALL.

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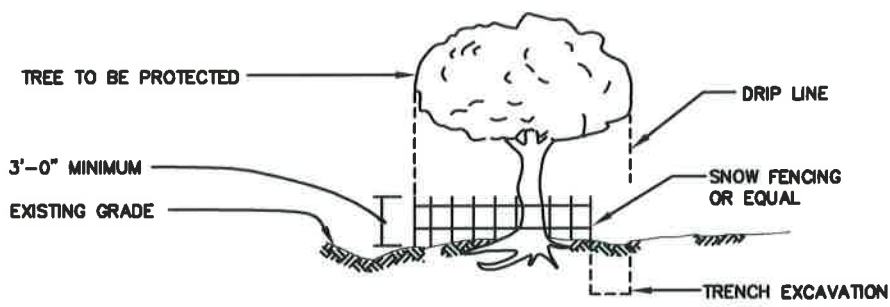
STANDARD DETAIL  
 TREE PROTECTION  
 DETAILS

SC  
 17.0



TEMPORARY TREE PROTECTION (PLAN)

NOTE: FENCING SHALL BE PLACED AT THE DRIP LINE OF TREES TO BE PROTECTED DURING CONSTRUCTION EXCEPT ON THE SIDE OF THE UTILITY TRENCHING. FENCING SHALL NOT BE PLACED CLOSER TO THE TREE THAN 1/2 THE TOTAL DISTANCE FROM THE TREE TO THE LIMITS OF THE TREE'S DRIP LINE. THIS SPACE IS TO ACCOMMODATE TRENCHING ONLY AND NOT TO ALLOW ADDITIONAL WORKING SPACE.



NOTE:  
(1) GROUPS OF TREES MAY  
BE FENCED AS ONE.

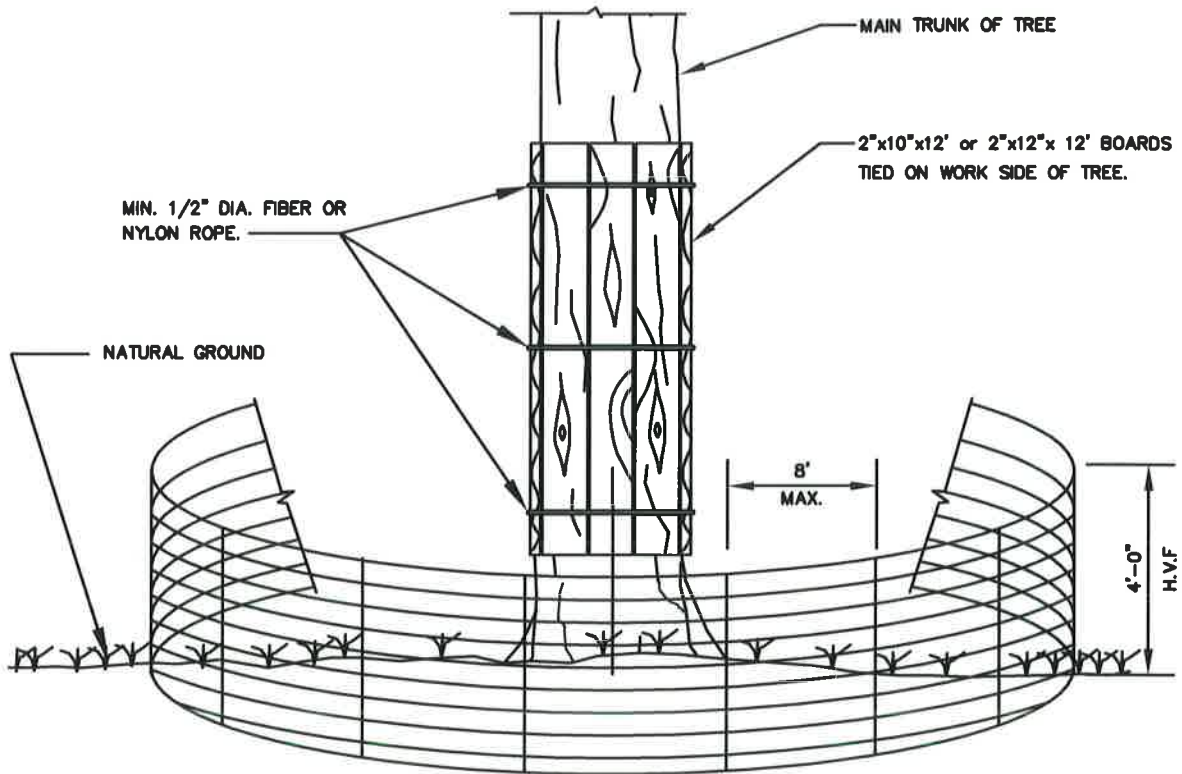
TEMPORARY TREE PROTECTION DETAIL

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STANDARD DETAIL  
TREE PROTECTION  
DETAILS

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**SPECIAL TREE PROTECTION DETAIL**

**NOTES:**

1. TIE WITH 1/2" DIAMETER ROPE (FIBER OR NYLON), SUFFICIENT 2"x10"x12' OR 2"x12"x12' BOARDS AROUND MAIN TRUNK OR TREE TO PROTECT ALL AREAS EXPOSED TO CONSTRUCTION.
2. ADDITIONAL HIGH VISIBILITY FENCE (H.V.F.) WILL BE PLACED 5' FROM THE TRUNK WHERE SILT FENCE IS NOT SPECIFIED.
3. SILT FENCE IS ONLY TO BE INSTALLED ON THE TRENCH SIDE OF TREES.
4. H.V.F FENCE POST MUST BE INSTALLED TO A DEPTH OF NO LESS THAN 1/3 OF THE POST HEIGHT.

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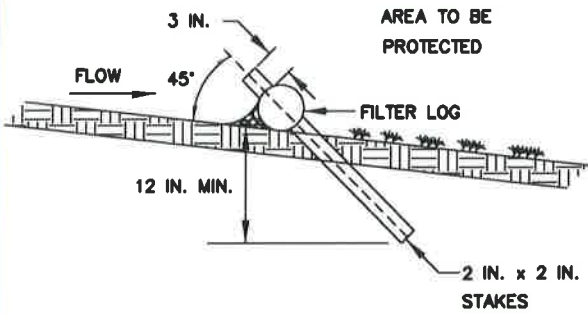
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STANDARD DETAIL  
  
SPECIAL TREE  
PROTECTION

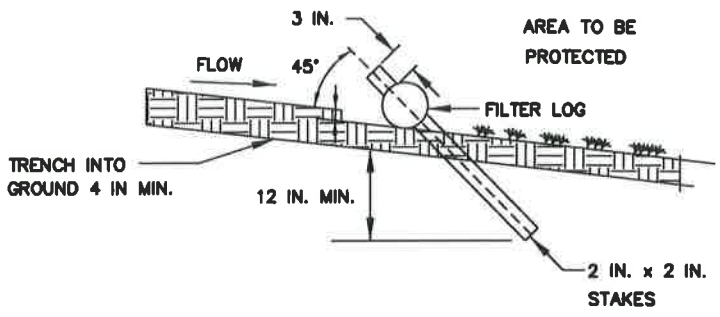
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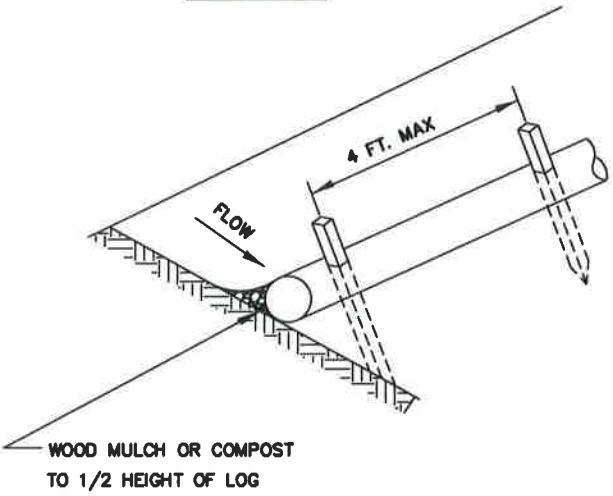
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SECTION

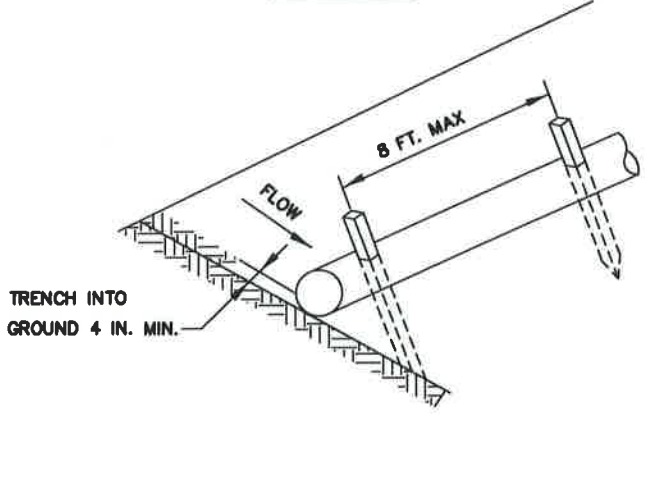


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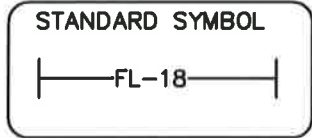
UNTRENCHED INSTALLATION

OR



ENTRENCHED INSTALLATION

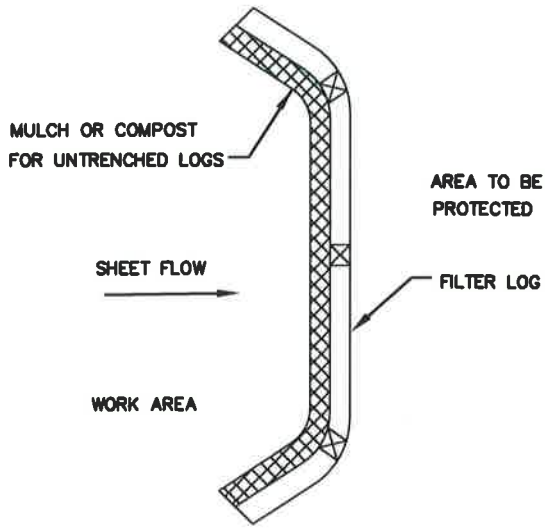
ISOMETRIC VIEW



THIS APPLICATION MAY NOT BE USED WITH LOGS SMALLER THAN 12 IN.

NOTE:

- 1. FOR NOTES SEE DETAIL SC/21.1



PLAN

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STANDARD DETAIL  
FILTER LOG

SC  
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NOTES:

1. PRIOR TO INSTALLATION, CLEAR ALL OBSTRUCTIONS INCLUDING ROCKS, CLODS, AND DEBRIS GREATER THAN ONE-INCH IN DIAMETER THAT MAY INTERFERE WITH PROPER FUNCTION OF FILTER LOG.
2. FILL LOG NETTING UNIFORMLY WITH COMPOST OR OTHER APPROVED BIODEGRADABLE MATERIAL TO DESIRED LENGTH SUCH THAT LOGS DO NOT DEFORM.
3. INSTALL FILTER LOGS PERPENDICULAR TO THE FLOW DIRECTION AND PARALLEL TO THE SLOPE WITH THE BEGINNING AND END OF THE INSTALLATION POINTING SLIGHTLY UP THE SLOPE CREATING A "J" SHAPE AT EACH END TO PREVENT BYPASS.
4. FOR UNTRENCHED INSTALLATION BLOW OR HAND PLACE MULCH OR COMPOST ON UPHILL SIDE OF THE SLOPE ALONG LOG.
5. STAKE FILTER LOG EVERY 4- FEET OR CLOSER ALONG ENTIRE LENGTH OF LOG OR TRENCH LOG INTO GROUND A MINIMUM OF 4- INCHES AND STAKE LOG EVERY 8- FEET OR CLOSER.
6. USE STAKES WITH A MINIMUM NOMINAL CROSS SECTION OF 2x2 INCH AND SUFFICIENT LENGTH TO ATTAIN A MINIMUM OF 12- INCHES INTO THE GROUND AND 3- INCHES PROTRUDING ABOVE LOG.
7. WHEN MORE THAN ONE LOG IS NEEDED, OVERLAP ENDS 12- INCHES MINIMUM AND STAKE.
8. REMOVE SEDIMENT WHEN IT HAS ACCUMULATED TO A DEPTH OF 1/2 THE EXPOSED HEIGHT OF LOG AND REPLACE MULCH. REPLACE FILTER LOG IF TORN. REINSTALL FILTER LOG IF UNDERMINING OR DISLODGING OCCURS. REPLACE CLOGGED FILTER LOGS.

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STANDARD DETAIL

FILTER LOG NOTES

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