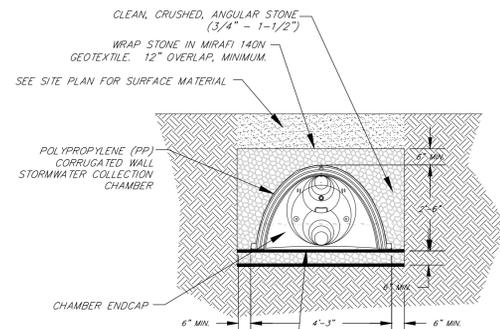


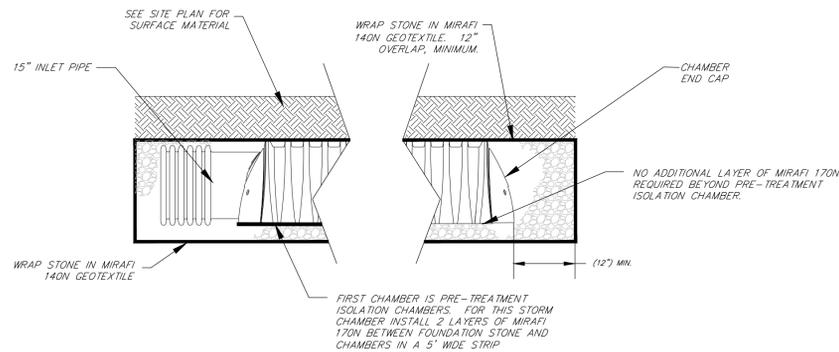
Infiltration System Construction Notes:

All upstream/upslope construction shall be complete and stabilized prior to allowing runoff to enter any infiltration systems. "Stabilized" shall mean paved surfaces, washed crushed stone, or vegetated areas that have established a dense and vigorous vegetative cover.



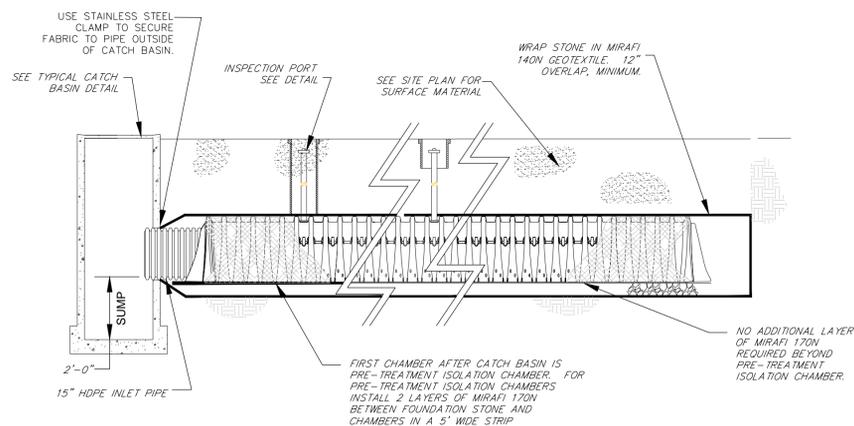
Typical Infiltration Trench Cross Section

N.T.S.



Typical Infiltration Row Inlet and End

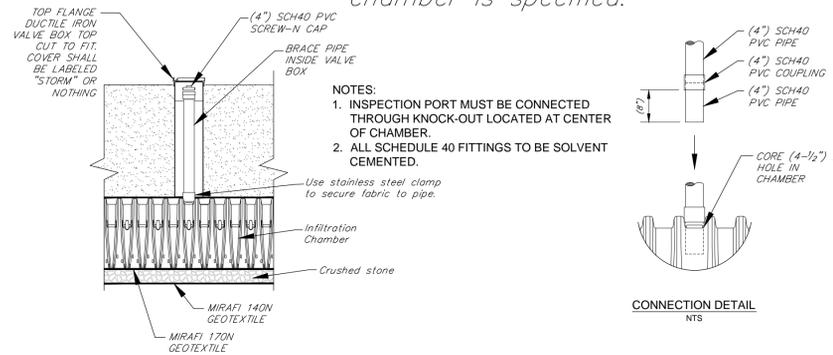
N.T.S.



Overall Trench Cross Section

N.T.S.

Inspection ports shall be installed in all pre-treatment isolation chambers and in the first chamber outside the catch basin when no isolation chamber is specified.



Typical Inspection Port Cross Section

N.T.S.

SIGN MATERIALS:

THE SIGN BASE MATERIALS USED FOR REGULATORY SIGNS MAY BE ANY OF THE FOLLOWING OF THE MINIMUM THICKNESS NOTED.

24" X 12"	24" X 24"	24" X 30"
12" X 18"	24" X 36"	36" X 48"
18" X 24"	30" X 24"	48" X 60"
0.060"	0.080"	0.100"

FLAT SHEET ALUMINUM

ALL PANELS SHALL HAVE RETROREFLECTIVE BACKGROUNDS

ALL SIGN POSTS SHALL BE SQUARE TUBE GALVANIZED STEEL PLACED IN GALVANIZED STEEL ANCHORS - SEE POST AND ANCHOR SELECTION CHART

GENERAL NOTES:

- All square tube steel posts and anchors shall be formed into a size and shape in such a manner that neither flash nor weld shall interfere with the telescoping properties, nor damage the galvanizing.
- Anchors may be driven or set into a dug hole and backfilled. If driven, a driving cap shall be used. The dug hole installation method shall be utilized in areas with poor soil conditions or as directed by the engineer. Backfill shall be compacted as directed by the engineer.
- The tops of sign posts shall be at or near the top of sign. The post shall not extend above the top of sign.
- Sign posts shall be installed a minimum of one foot below ground, inside the anchor. The length of anchor exposed above ground shall not exceed four inches.
- All dimensions shown in inches.

POST AND ANCHOR SELECTION CHART

POST SIZE (IN.)	POST THICKNESS (IN.)	POST WEIGHT (LBS./FT.)	POST GAGE	SECTION MODULUS (IN. ³)	ONE POST SV	TWO POST SV	THREE POST SV	POSTS PERMITTED IN 8' PATH	ANCHOR SIZE (IN.)	ANCHOR GAGE	MINIMUM ANCHOR LENGTH
1.75	.083	1.88	14	0.222	45	90	135	TWO	2.00	12	30
2.00	.109	2.42	12	0.393	80	160	240	TWO	2.25	12	48
2.50	.109	3.35	12	0.673	137	274	411	ONE	3.00	7	48

NOTES:

- All sign posts shall have 7/16 inch holes every one inch on center (all four sides).
- The number of sign posts permitted within an eight foot path assumes that the sign assembly is not protected by guardrail or is located within a guardrail's deflection distance determined per the current "American Association of State Highway and Transportation Officials" (AASHTO) roadside design guide; additional posts may be installed using slip bases that meet "national cooperative highway research program" (NCHRP) report 350 or the AASHTO "Manual For Assessing Safety Hardware" (mash). The appropriate resource shall be determined as described in the mash publication.
- To use the selection value (SV) columns in the table above, multiply a sign's surface area in square feet (H X L) by the sign's height in feet measured from the ground to the centroid of the sign assembly (H). This result must be less than or equal to the corresponding selection value. Note, that for signs with multiple posts, the largest height dimension shall be used to calculate the post selection value.
- The design criteria utilized in sign post and anchor selection is as follows: wind speed of 70 mph (10 year mean recurrence interval), wind pressure of 19 psf, steel minimum yield of 55,000 psi, and an allowable stress of 1.4 (0.60 fy).

Roadway Sign and Post Details

N.T.S.

SYMBOL

2"x4" WOOD FRAME
 1.5" MAX.
 3" MIN.
 STAKE
 FABRIC
 BURIED FABRIC
 1" MIN.
 DROP INLET WITH GATE
 FRAME
 GATHER EXCESS AT CORNERS

CONSTRUCTION SPECIFICATIONS

- FILTER FABRIC SHALL HAVE AN EOS OF 40-85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.
- CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
- STAKE MATERIALS WILL BE STANDARD 2" X 4" WOOD OR EQUIVALENT. METAL WITH A MINIMUM LENGTH OF 3 FEET.
- SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE A MINIMUM 18 INCHES DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.
- FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
- A 2" X 4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY.

MAXIMUM DRAINAGE AREA 1 ACRE

ADAPTED FROM DETAILS PROVIDED BY: NY STATE DEC
 ORIGINALLY DEVELOPED BY USDA-NRCS
 VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FILTER FABRIC DROP INLET PROTECTION

Figure 5.3b Storm Drain Inlet Protection: Filter Fabric

PERMIT REVIEW ONLY

STATE OF VERMONT
 REGISTERED PROFESSIONAL ENGINEER
 No. 13703
 10/21/14

Date revised	Description	Checked	Date
Design	WHN		
Drawn	SLM		
Checked			
Scale	As Noted		
Date	10/21/14		
Project	14201 North Ave. and Haswell Street		Burlington, Vermont

Civil Details

COTS NORTH AVENUE

KREBS & LANSING Consulting Engineers, Inc.
 164 Main Street, Colchester, Vermont 05446

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