

Infiltration Trench Construction Checklist

This checklist has been developed for BMPs designed in accordance with the Delaware Sediment and Stormwater Program's Post Construction Stormwater BMP Standards and Specifications. Submit interim versions of this construction checklist to the approval agency weekly with the Certified Construction Reviewer report. Submit the final completed checklist with the PCVD.

PROJECT INFORMATION

Project Name/BMP Name: _____

Project Approval Number: _____ NOI number: _____

Location: _____

Contractor: _____

Construction Reviewer: _____

Supervising P.E.: _____

For each checklist item, enter in the blank the date (MM/DD/YY) the item is completed and verified by the construction reviewer. If an item is not applicable, enter "N/A" in the blank for that checklist item.

I. Pre-Construction

- A. _____ Infiltration trench field meeting with responsible person and person completing construction checklist.
- B. _____ Extents of infiltration trench (to include pretreatment area) delineated and access by equipment prohibited with Sensitive Area Protection (SAP) to prevent compaction of existing soils.
- C. _____ Equipment on the site large enough to excavate infiltration trench from the sides of the facility.
- D. _____ Pervious areas draining to the infiltration trench stabilized in accordance with the approved plan.
- E. _____ Pipe and appurtenances on-site and dimensions and properties checked and confirmed to be in accordance with the approved plan.
- i. _____ Discharge pipe
 - ii. _____ Overflow collection pipe
 - iii. _____ Supplemental storage pipe or chambers
 - iv. _____ Inspection port(s)
 - v. _____ Other; list: _____

Infiltration Trench Construction Checklist

Project Name/BMP Name: _____

Construction Reviewer: _____

F. _____ Materials on-site and dimensions and properties checked and confirmed to be in accordance with the approved plan. **Submit materials invoice or delivery tickets to approval agency as part of PCVD for the following items:**

- i. _____ Clean, washed aggregate (max. diameter 2.5", min. diameter 0.5")
- ii. _____ Geotextile fabric with flow rate \geq 110 gal/min/sf
- iii. _____ Coarse sand (e.g. ASTM C33, 0.02-0.04 inch)
- iv. _____ Other; list: _____

II. Excavation and Grading

- A. _____ Infiltration trench excavated to dimensions and at location as per the approved plan.
- B. _____ Infiltration trench excavated to design bottom elevation.
- C. _____ Infiltration trench excavated from the sides to not compact the existing soil.
- D. _____ Groundwater not encountered during excavation. (Note: If groundwater is encountered during the excavation process, construction of the facility must cease, and the designer notified that a plan modification is necessary)
- E. _____ Sides of infiltration trench excavated vertically.
- F. _____ Bottom of excavation in accordance with the approved plan.
- G. _____ Bottom of trench excavation scarified prior to placement of sand.
- H. _____ Geotextile fabric placed along the vertical sides of the trench, tuck into sand at the bottom for anchoring. No geotextile fabric should be placed on the bottom of the trench.
- I. _____ Confirmatory testing performed in native soil at design bottom elevation in accordance with Soil Investigation Procedures for Stormwater BMPs. **Submit confirmatory infiltration testing report to approval agency as part of PCVD.**

- Confirmatory infiltration testing
 - Confirmatory rate is at least 150% of the approved design rate
 - Confirmatory rate is less than 150% of approved design rate; designer notified to provide plan revision
- Hand augers to a minimum depth of 3 feet below the bottom of the facility
 - Limiting layer not present
 - Limiting layer present; designer notified to provide plan revision

Infiltration Trench Construction Checklist

Project Name/BMP Name: _____

Construction Reviewer: _____

III. Structural Components

- A. _____ Pretreatment method(s) installed per the approved plan.
- B. _____ Discharge pipe installed from overflow collection pipe to discharge point.
- C. _____ Rock outlet protection provided at all points of discharge and riprap stone size and dimension confirmed.
- D. _____ Supplemental storage pipe or chambers installed.
- E. _____ Inspection port(s) installed.
- F. _____ Underground storage stone (clean aggregate) placed with the depth of stone in accordance with the approved plan.
- G. _____ Photo documentation of construction of structural components taken. **Submit photo documentation to approval agency as part of PCVD.** (Photo #: _____)

IV. Vegetative Stabilization

- A. _____ Areas to be vegetated have completed the following items. **Submit soil test report, lime, fertilizer, and seed tickets to approval agency as part of PCVD.**
 - i. _____ Soil testing.
 - ii. _____ Application of topsoil to a minimum depth of 4 inches.
 - iii. _____ Application of soil amendments including lime and fertilizer in accordance with the recommendations of the soil test or the approved plan.
 - iv. _____ Application of seed to the soil surface using approved methods.
 - v. _____ Mulch applied in accordance with the approved plan.
- B. _____ Turf cover established over the trench if called for on the approved plan.
- C. _____ Photo documentation of landscaping components taken. **Submit photo documentation to approval agency as part of PCVD.** (Photo #: _____)

V. Erosion and Sediment Control

- A. _____ Sediment prevented from entering infiltration trench by constructing the trench off-line or by using perimeter controls as specified on the approved plan.
- B. _____ Sediment controls removed once drainage area meets final stabilization standard.
- C. _____ Trench online.

Infiltration Trench Construction Checklist

Project Name/BMP Name: _____

Construction Reviewer: _____

VI. Maintenance Access

- A. _____ Maintenance access to the perimeter of the infiltration trench has minimum width of 15 feet.
- B. _____ Profile grade of maintenance access does not exceed 10H:1V.
- C. _____ Minimum 10H:1V cross slope on maintenance access.

VII. Post Construction Verification

Owner shall submit post construction verification documents to demonstrate that the infiltration trench has been constructed within allowable tolerances in accordance with the Approved Sediment and Stormwater Management Plan and accepted by the approving agency.

- A. _____ Constructed top bank elevation at or above design elevation confirmed after ESC controls are removed.
- B. _____ Constructed infiltration surface area confirmed equal to or greater than 90% of the design surface area once ESC controls are removed.
- C. _____ Constructed volume of the infiltration practice storage confirmed equal to or greater than 90% of the of the design.
- D. _____ Constructed elevation of all structures confirmed to be within 0.15 foot of the design elevation for:
 - i. _____ Discharge pipe
 - ii. _____ Overflow catch basin/weir
 - iii. _____ Other; list: _____

Infiltration Trench Construction Checklist

Project Name/BMP Name: _____

Construction Reviewer: _____

VIII. BMP Acceptance

E. _____ Final BMP construction review complete.

F. _____ All BMP punch list items addressed.

G. _____ Infiltration trench is online (stabilized drainage area is entering infiltration trench).

H. _____ As-built survey.

I. _____ PCVD submitted to approval agency for review and approval. Submit the following pieces of PCVD documentation to the approval agency:

- Materials invoice or delivery tickets
- Confirmatory infiltration testing report
- Photo documentation
- Soil test report
- Lime, fertilizer, and seed tickets
- As-built survey
- Final, completed BMP Construction Checklist