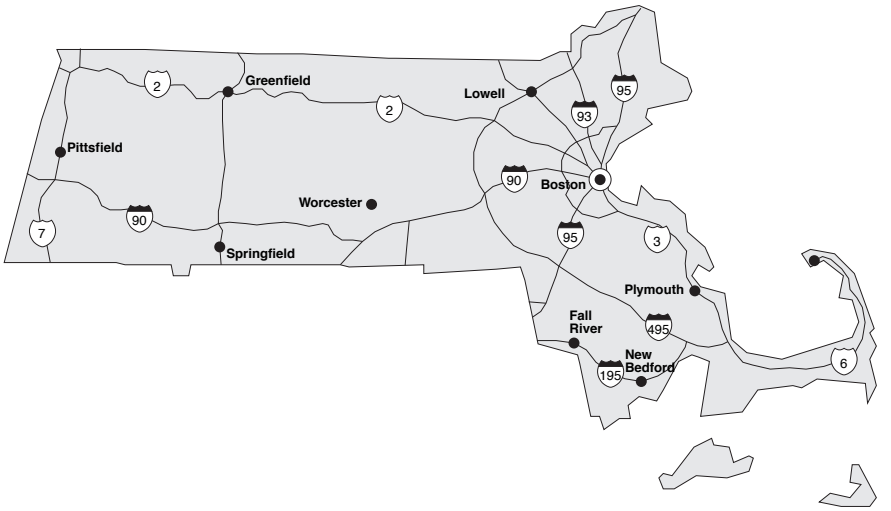
Infiltrator™
Water Technologies
Part of ADS

Massachusetts

Design and Installation Manual for Infiltrator Chambers in Massachusetts



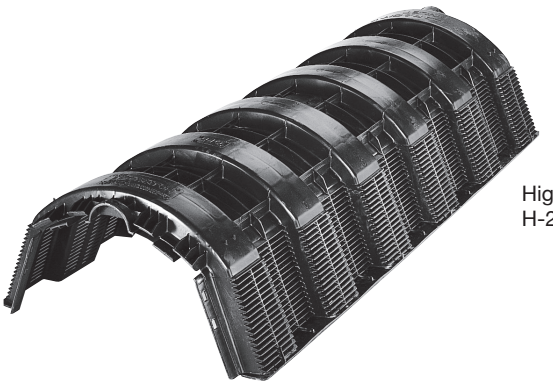
The purpose of this product information sheet is to provide specific design and installation information pertinent for the use of Infiltrator Quick4 HIgh Capacity chambers in Massachusetts. Infiltrator products must be used in conjunction with the standards described in the Massachusetts Dep Title 5, 3/0 CMS 15.000 and Infiltrator's approval (www.mass.gov.dep). This document provides a brief description of the chamber and sizing specifications. For more detailed design information, please contact Infiltrator Systems at 1-800-221-4436.

For more detailed design information, please contact Infiltrator Systems at 1-800-221-4436

Infiltrator Chambers in Massachusetts

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Massachusetts



High Capacity
H-20



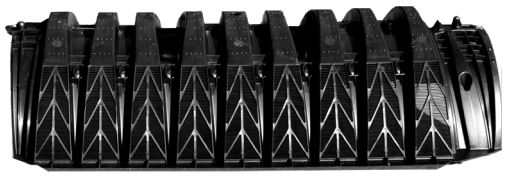
3050



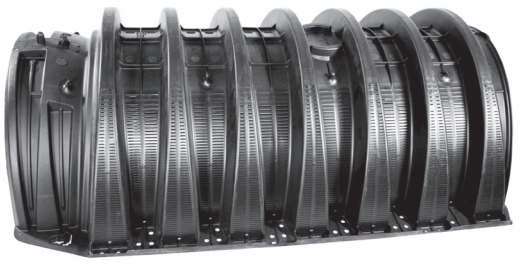
Quick4
Standard



Quick4 Plus
Standard
Low Profile (LP)



Quick4 Plus
Standard



Quick4 High
Capacity

Introduction

The purpose of this manual is to provide the minimum design and installation information pertinent to the use of Infiltrator chambers. Each revised version of this manual supersedes the previous version.

The use of Infiltrator chambers according to this manual is authorized per the Modified Approval of Alternative Systems for General Use, dated February 4, 2009 and issued per Title 5, 310 CMR 15.000 of the Commonwealth of Massachusetts Department of Environmental Protection. For more detailed design and installation information, please contact Infiltrator Systems at 1-800-221-4436.

Note: Per Title 5 requirements, all installing contractors are required to be certified by Infiltrator Systems Inc. All sites must meet minimum site requirements including reserve area per the above-referenced approval.

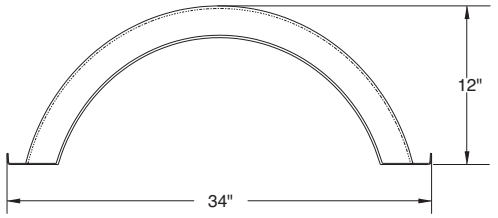
Quick4® CHAMBER SYSTEMS Quick4 PLUS™ CHAMBER SYSTEMS

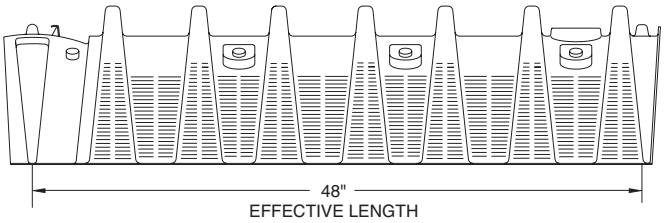
Infiltrator Chambers

The Quick4 Standard, Quick4 High Capacity, Quick4 Plus Standard, and Quick4 Plus Standard Low Profile (LP) chambers can be installed in 36-inch-wide trenches. The 3050 chamber can be installed in a 53-inch-wide trench. All chambers can be installed in a bed. There are a variety of system inletting options to choose from.

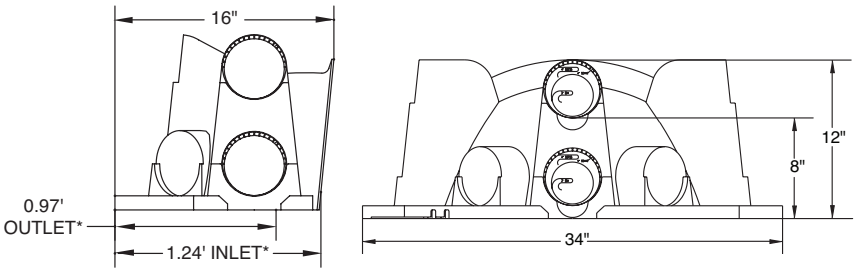
Quick4 Standard Chamber (not to scale)

SIDE AND END VIEWS





MULTIPORT ENDCAP SIDE AND END VIEWS

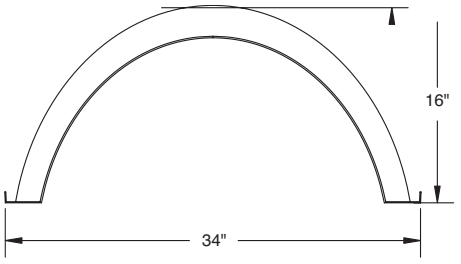


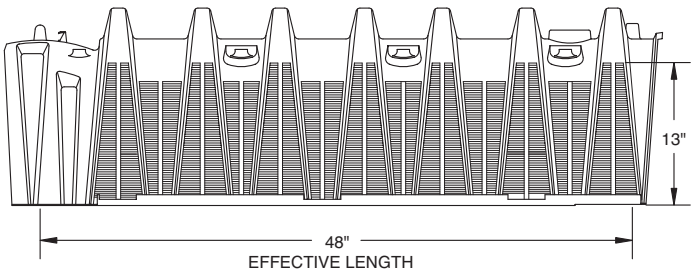
Quick4 Standard Chamber Nominal Specifications	
Size	34”W x 48”L* x 12”H
Invert Elevation	8”
Storage Capacity Per Unit	43.5 gal

*Installed length.

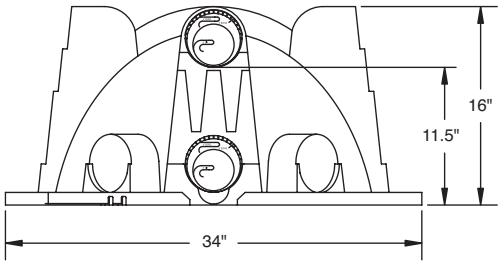
Quick4 High Capacity Chamber (not to scale)

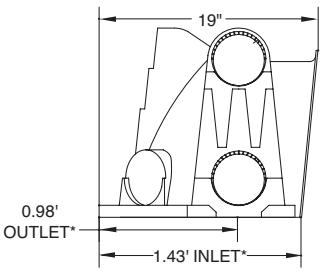
SIDE AND END VIEWS





MULTIPORT ENDCAP SIDE AND END VIEWS





Quick4 High Capacity Chamber Nominal Specifications	
Size	34”W x 48”L* x 16”H
Invert Elevation	11.5”
Storage Capacity Per Unit	62 gal

*Installed length.

PRODUCTS

Quick4 Plus Standard LP Chamber (not to scale)

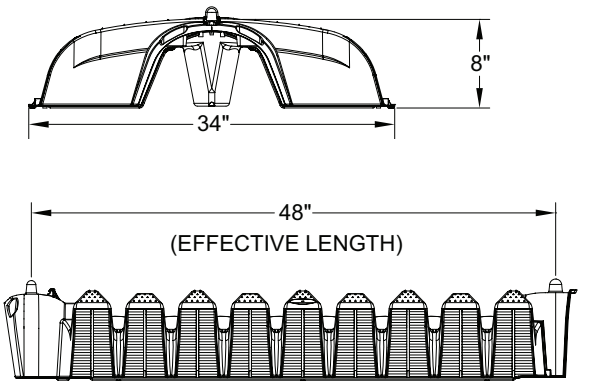
Reduced Vertical Profile
The Quick4 Plus Standard LP chamber provices a lower vertical profile than previous chamber models. This feature provides two distinct benefits:

- **Promotion of aerobic treatment**
  The reduced vertical profile moves infiltration closer to the ground surface, thereby improving the potential for subsoil aeration from the atmosphere. This promotes oxygen recharge to the biologically active vadose zone beneath the infiltrative surface and helps support aerobic decomposition of wastewater.
- **Increased vertical separation**
  For a drainfield situated where a shallow groundwater table, impervious conditions, or other restrictions limit vertical separation distance, the reduced height of the LP chamber increases separation distance. This provides more soil than can contribute to wastsewater treatement between the infiltrative surface and limiting condition.

Quick4 Plus Standard LP Chamber Nominal Specifications	
Size	34”W x 48”L* x 8”H
Invert Elevation	9”

*Installed length.

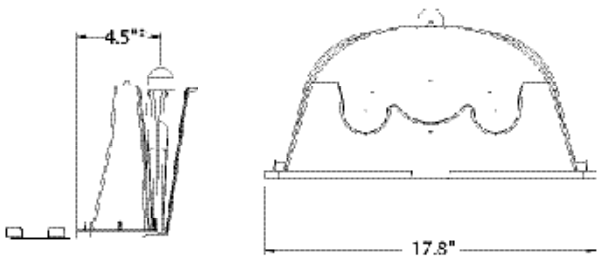
SIDE AND END VIEWS



NOTE: The Quick4 Plus Standard LP Chamber is compatible with the Quick4 Plus 8 Endcap and Quick4 Plus All-in-One 8 Encap.

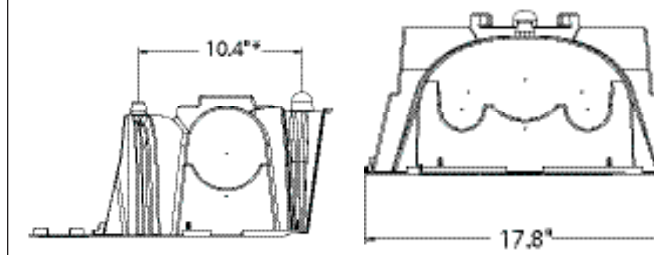
Quick4 Plus 8 Endcap (not to scale)

SIDE AND END VIEWS *Installed length



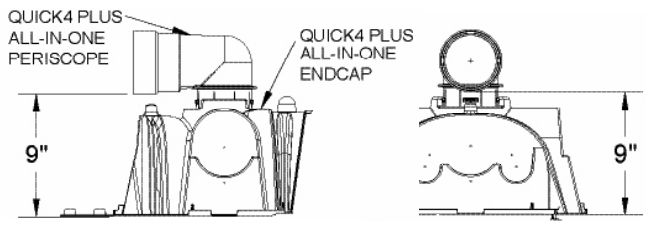
Quick4 Plus All-in-One 8 Endcap (not to scale)

SIDE AND END VIEWS *Installed length



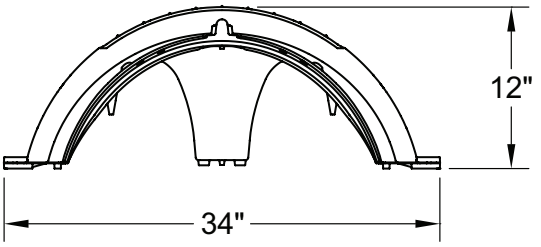
Quick4 Plus All-in-One Periscope (not to scale)

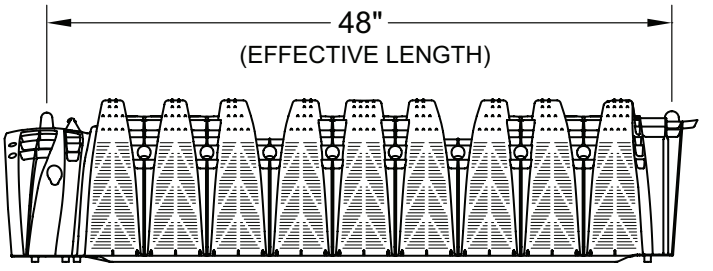
SIDE AND END VIEWS *Installed length



Quick4 Plus Standard Chamber (not to scale)

SIDE AND END VIEWS
(6” Minimum Cover)
(96” Maximum Cover)





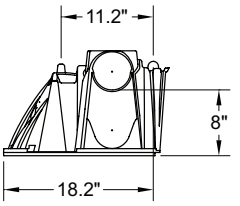
NOTE: The Quick4 Plus Standard Chamber is compatible with the Quick4 Plus All-in-One 12 Endcap.

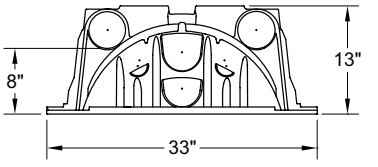
Quick4 Plus Standard Chamber Nominal Specifications	
Size	34”W x 48”L* x 8”H
Invert Elevation	0.6”, 3.3”, 7.3”, 9.0”

*Installed length.

Quick4 Plus All-in-One 12 Endcap (not to scale)

SIDE AND END VIEWS *Installed length

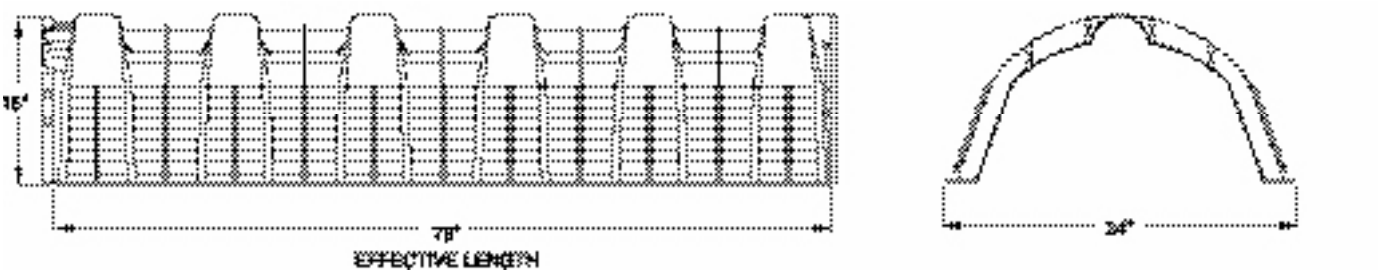




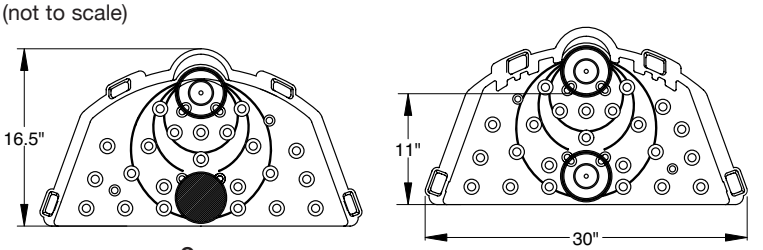
PRODUCTS

High Capacity H-20 Chambers (not to scale)

SIDE AND END VIEWS



POSILOCK END PLATES
(not to scale)



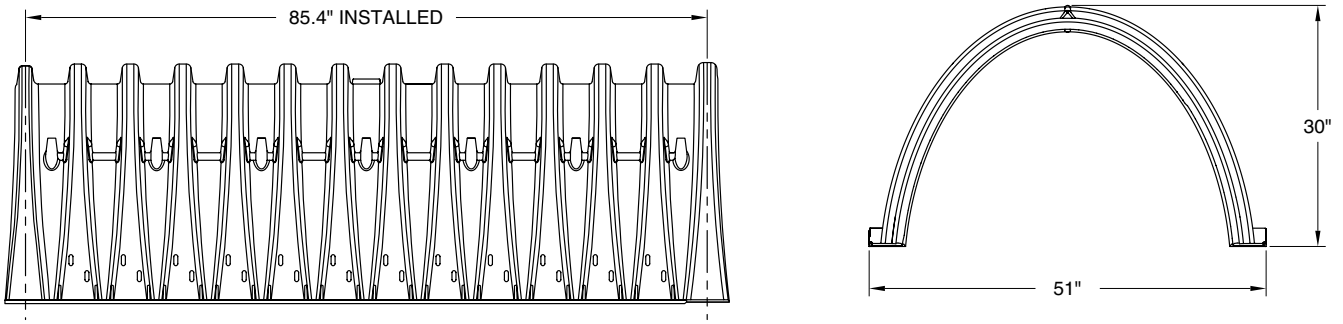
Open
Part # HCEO

High Capacity H-20 Chamber Nominal Specifications	
Size	34”W x 75”L* x 16”H
Invert Elevation	11”
Storage Capacity Per Unit	114 gal

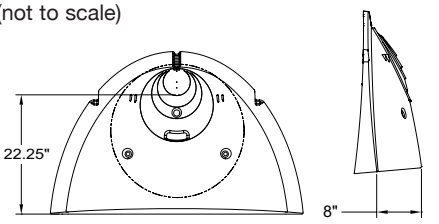
*Installed length.

3050 Chambers (not to scale)

SIDE AND END VIEWS



Endcap
(not to scale)



3050 Chamber Nominal Specifications	
Size	51”W x 85.4”L* x 30”H
Invert Elevation	22.25”
Storage Capacity Per Unit	343 gal

*Installed length.

Table 1: Chamber Ratings

Model	Dimensions W x L x H (Inches)	Invert Height (Inches)	Trench	Bed of Field
			Effective Leaching Area (sf/lf)	Effective Leaching Area (sf/lf)
Quick4 Standard	34 x 48 x 12	8	6.96	4.72
Quick4 Plus Standard LP	34 x 48 x 8	9	6.96	4.72
Quick4 Plus Standard	34 x 48 x 12	9	6.96	4.72
Quick4 High Capacity	34 x 48 x 16	11.5	7.93	4.72
High Capacity H-20	34 x 75 x 16	11	7.79	4.72
3050	51 x 85.4 x 30	22.25	6.92	7.10

Notes:

1. For new construction, no system shall be designed and constructed with a soil absorption system area of less than 400 sq ft.
2. For traffic applications, the High Capacity H-20 and 3050 chambers can be used under areas subjected to AASHTO H-20 wheel loads. Due to stone on the bottom of the trench or bed for AASHTO H-20 designs, the above-listed chamber ratings do not apply. AASHTO H-20 chamber systems are sized per 310 CMR 15.242.
3. The following chamber sizes are approved for use. For information and sizing please contact Infiltrator Systems at 800-221-4436.

   Quick4 Equalizer 24
   Quick4 Equalizer 24 LP
   Quick4 Equalizer 36

SYSTEM SIZING

Quick4 Chambers in Bed Systems

TABLE 2: BED SIZING

Soil Class	Percolation Rate (min/in)	Number of Chambers in Aggregate-Free Bed Systems *(See note below for minimum requirements & MultiPort Endcap benefits)*					
		330 GPD Design Flow 3 Bedrooms or Less		440 GPD Design Flow 4 Bedrooms or Less		550 GPD Design Flow 5 Bedrooms or Less	
		Q4 Plus Std, Q4 Plus Std LP, and Q4 Std 4.72 SF/LF	**Q4 HC 4.72 SF/LF**	**Q4 Plus Std, Q4 Plus Std LP, and Q4 Std 4.72 SF/LF**	**Q4 HC 4.72 SF/LF**	**Q4 Plus Std, Q4 Plus Std LP, and Q4 Std 4.72 SF/LF**	**Q4 HC 4.72 SF/LF**
		see Note 1 below for minimum number of chambers for new construction					
Class I Sandy, Loamy Sands	<=5	24	24	32	32	40	40
	6	25	25	34	34	42	42
	7	26	26	35	35	43	43
	8	27	27	36	36	45	45
Class II Sandy Loams, Loams	<=5	30	30	39	39	49	49
	6	30	30	39	39	49	49
	7	30	30	39	39	49	49
	8	30	30	39	39	49	49
	10	30	30	39	39	49	49
	15	32	32	42	42	53	53
	20	33	33	44	44	55	55
	25	44	44	59	59	73	73
	30	53	53	71	71	89	89
Class III Silty Loams	15	48	48	63	63	79	79
	20	52	52	69	69	86	86
	25	53	53	71	71	89	89
	30	61	61	81	81	101	101
	40	70	70	94	94	117	117
	50	88	88	117	117	146	146
	60	117	117	156	156	195	195
Class IV Clays, Silty Clay Loams	50	88	88	117	117	146	146
	60	117	117	156	156	195	195

Notes:

1. Per 310 CMR 15.252(2)(i), for new construction, no system shall be designed and constructed with a soil absorption system area of less than 400 square feet. The method for calculating the minimum number of chambers and calculated minimum for each chamber model are provided below:

   Minimum number of chambers = 400 sf / (effective leaching area of chamber x chamber length)

   - Quick4 Plus Standard, Quick4 Plus Standard LP, and Quick4 Standard: 400 sf / (2.8 sf/lf x 4.0 lf) = 36 chambers
   - Quick4 High Capacity: 400 sf / (2.8 sf/lf x 4.0 lf) = 36 chambers

2. All Quick4 chambers are 4 feet long.

3. The combination of the endcaps provides a sizing benefit for system design. The minimum number of chambers shown above may be reduced by accounting for the length credit provided by the endcaps.

Average additional length added by endcaps

- Quick4 Plus Standard and Quick4 Plus Standard LP - 1.1 linear feet/pair
- Quick4 Standard - 1.1 linear feet/pair
- Quick4 High Capacity - 1.2 linear feet/pair
- Quick4 Plus All-in-One Endcap at end of trench - 1.1 linear feet/endcap
- Quick4 Plus All-in-One Endcap mid-line in chamber row - 0.9 linear feet/pair
- Quick4 Plus Endcap at end of trench - 0.4 linear feet/endcap

Quick4 Chambers in Trench Systems

TABLE 3: TRENCH SIZING

Soil Class	Percolation Rate (min/in)	Number of Chambers in Aggregate-Free Bed Systems *(See note below for minimum requirements & MultiPort Endcap benefits)*					
		330 GPD Design Flow 3 Bedrooms or Less		440 GPD Design Flow 4 Bedrooms or Less		550 GPD Design Flow 5 Bedrooms or Less	
		Q4 Plus Std, Q4 Plus Std LP, and Q4 Std **3' Wide Trench 6.96 SF/LF**	**Q4 HC** **3' Wide Trench 7.93 SF/LF**	**Q4 Plus Std, Q4 Plus Std LP, and Q4 Std** **3' Wide Trench 6.96 SF/LF**	**Q4 HC** **3' Wide Trench 7.93 SF/LF**	**Q4 Plus Std, Q4 Plus Std LP, and Q4 Std** **3' Wide Trench 6.96 SF/LF**	**Q4 HC** **3' Wide Trench 7.93 SF/LF**
		see Note 1 below for minimum number of chambers for new construction					
Class I Sandy, Loamy Sands	<=5	17	15	22	19	27	24
	6	17	15	23	20	29	25
	7	18	16	24	21	30	26
	8	18	16	24	22	30	27
Class II Sandy Loams, Loams	<=5	20	18	27	24	33	29
	6	20	18	27	24	33	29
	7	20	18	27	24	33	29
	8	20	18	27	24	33	29
	10	20	18	27	24	33	29
	15	22	19	29	25	36	31
	20	23	20	30	27	38	33
	25	30	27	40	35	50	44
	30	36	32	48	43	60	53
Class III Silty Loams	15	33	29	43	38	54	47
	20	35	31	47	41	59	51
	25	36	32	48	43	60	53
	30	41	36	55	48	69	60
	40	48	42	64	56	80	70
	50	60	53	80	70	99	87
	60	80	70	106	93	132	116
Class IV Clays, Silty Clay Loams	50	60	53	80	70	99	87
	60	80	70	106	93	132	116

Notes:

1. Per 310 CMR 15.251(1)(e), for new construction, no system shall be designed and constructed with a soil absorption system area of less than 400 square feet. The method for calculating the minimum number of chambers and calculated minimum for each chamber model are provided below:

   Minimum number of chambers = 400 sf / (effective leaching area of chamber x chamber length)

   - Quick4 Plus Standard, Quick4 Plus Standard LP, and Quick4 Standard: 400 sf / (4.2 sf/lf x 4.0 lf) = 24 chambers
   - Quick4 High Capacity: 400 sf / (4.8 sf/lf x 4.0 lf) = 21 chambers

2. All Quick4 chambers are 4 feet long.

3. The combination of the endcaps provides a sizing benefit for system design. The minimum number of chambers shown above may be reduced by accounting for the length credit provided by the endcaps.

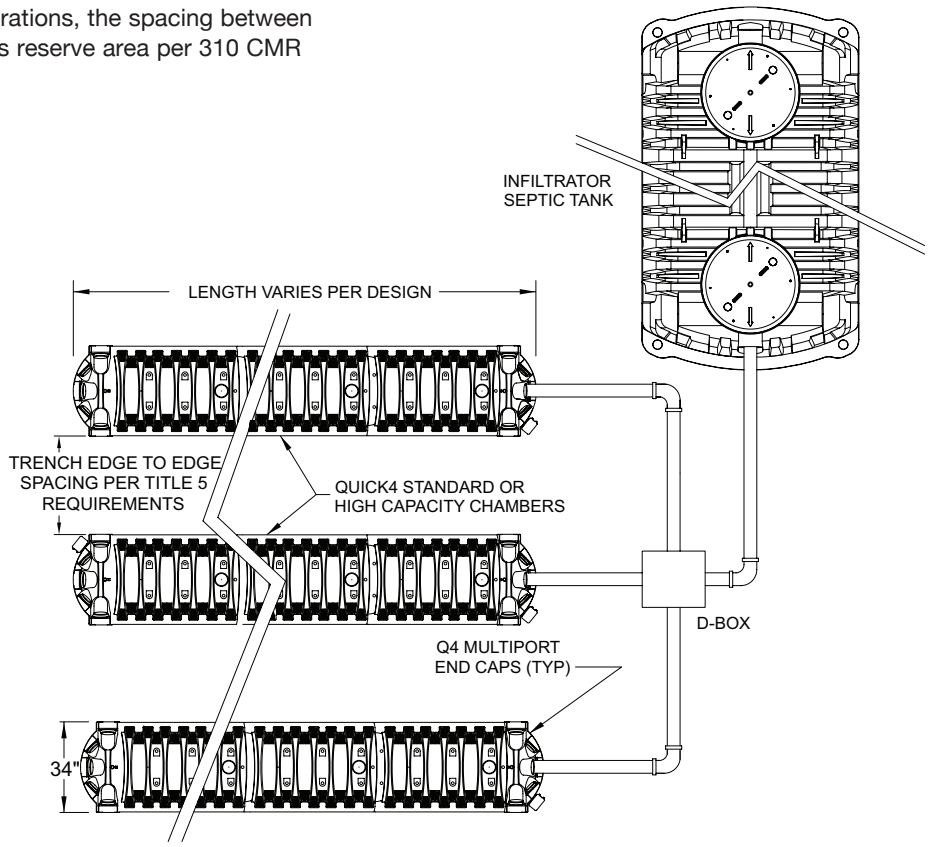
Average additional length added by endcaps

- Quick4 Plus Standard and Quick4 Plus Standard LP - 1.1 linear feet/pair
- Quick4 Standard - 1.1 linear feet/pair
- Quick4 High Capacity - 1.2 linear feet/pair
- Quick4 Plus All-in-One Endcap at end of trench - 1.1 linear feet/endcap
- Quick4 Plus All-in-One Endcap mid-line in chamber row - 0.9 linear feet/pair
- Quick4 Plus Endcap at end of trench - 0.4 linear feet/endcap

QUICK4 STANDARD AND QUICK4 HIGH CAPACITY TRENCH CONFIGURATIONS

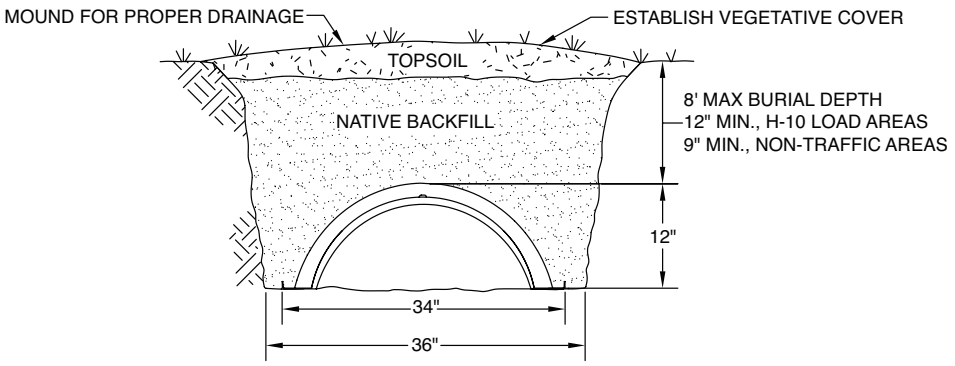
Typical Plan View (not to scale)

Note: For trench configurations, the spacing between trenches may be used as reserve area per 310 CMR 15.251 (4).



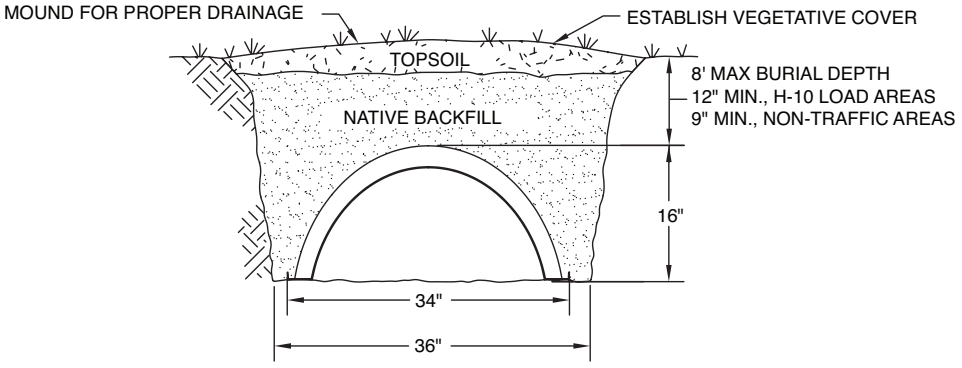
Typical Quick4 Standard Cross Section (not to scale)

Rating: 6.96 sf/lf



Typical Quick4 HIgh Capacity Cross Section (not to scale)

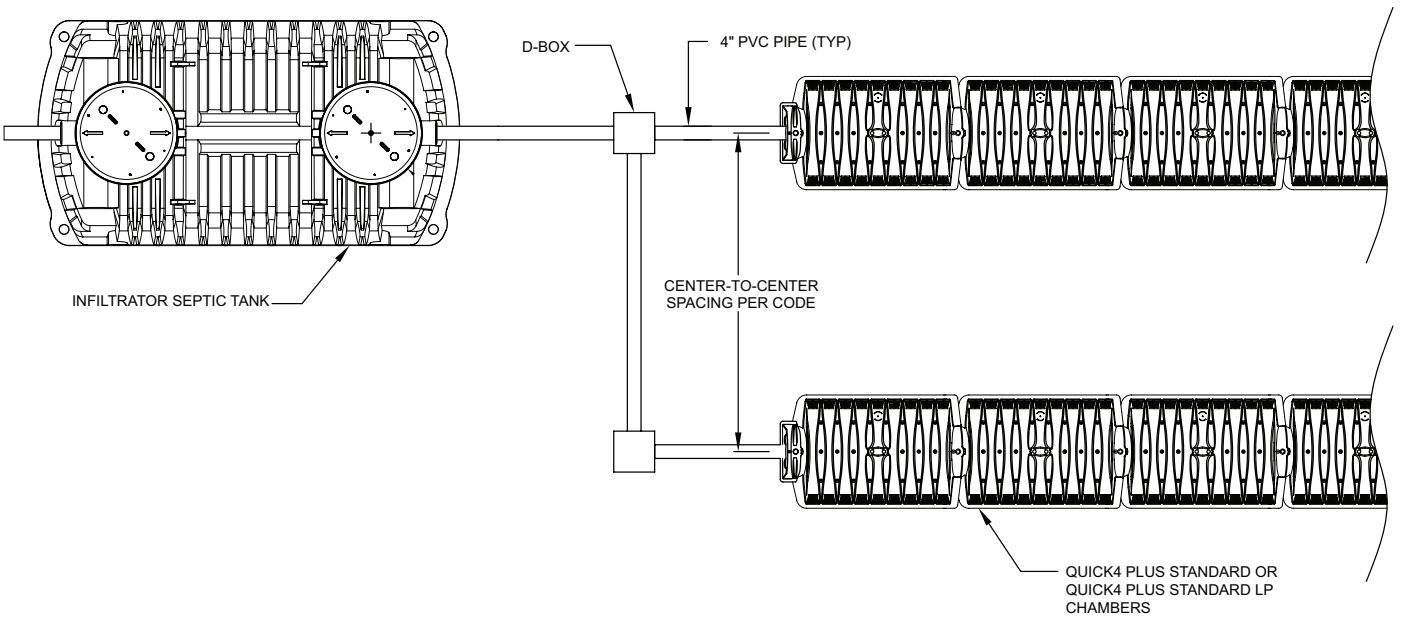
Rating: 7.93 sf/lf



QUICK4 PLUS STANDARD AND QUICK4 PLUS STANDARD LP TRENCH CONFIGURATIONS

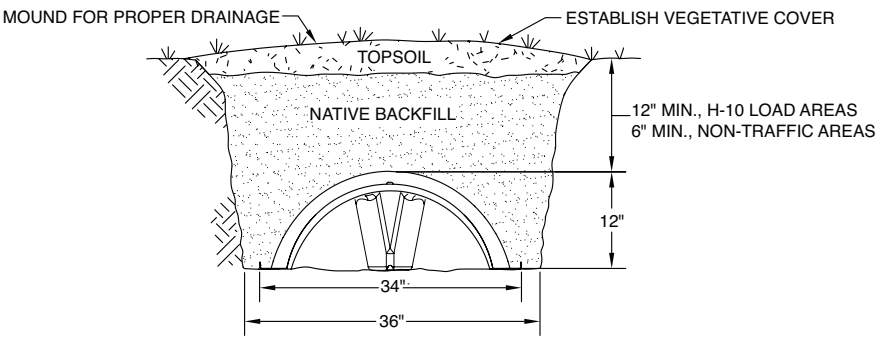
Typical Plan View (not to scale)

Note: For trench configurations, the spacing between trenches may be used as reserve area per 310 CMR 15.251 (4).



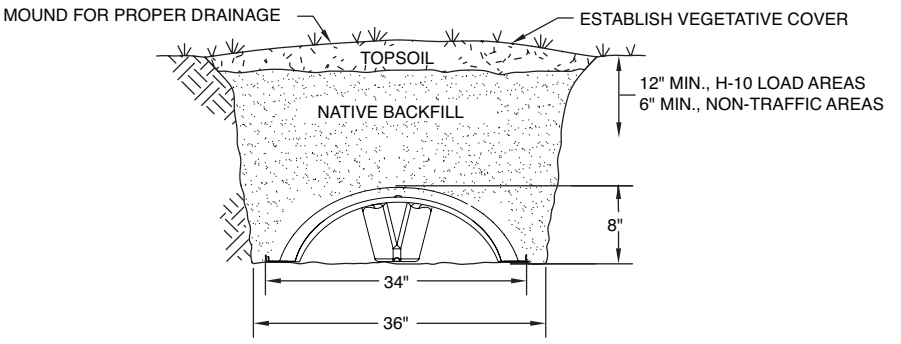
Typical Quick4 Plus Standard Cross Section (not to scale)

Rating: 6.96 sf/lf



Typical Quick4 Plus Standard Low Profile (LP) Cross Section (not to scale)

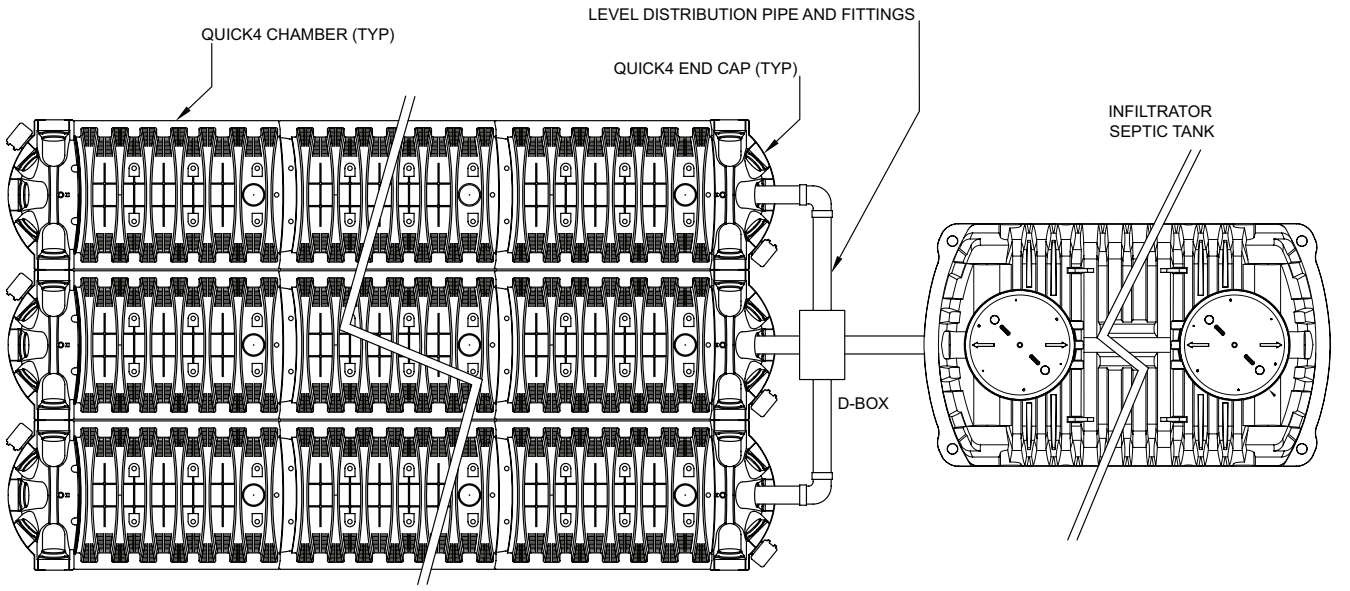
Rating: 6.96 sf/lf



QUICK4 STANDARD AND QUICK4 HIGH CAPACITY BED CONFIGURATIONS

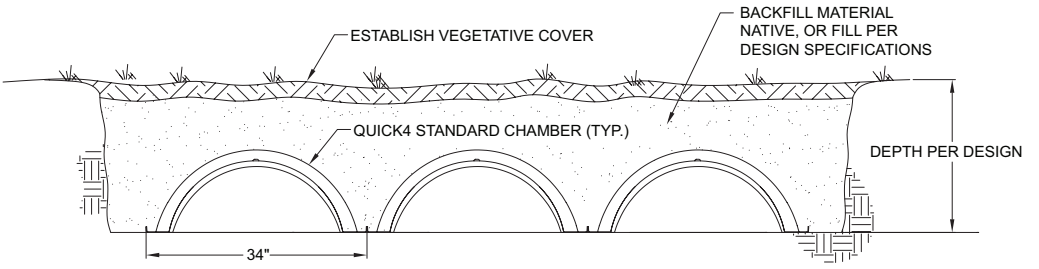
Typical Plan View (not to scale)

Note: 6” minimum spacing between chamber rows is no longer required.



Typical Quick4 Standard Cross Section (not to scale)

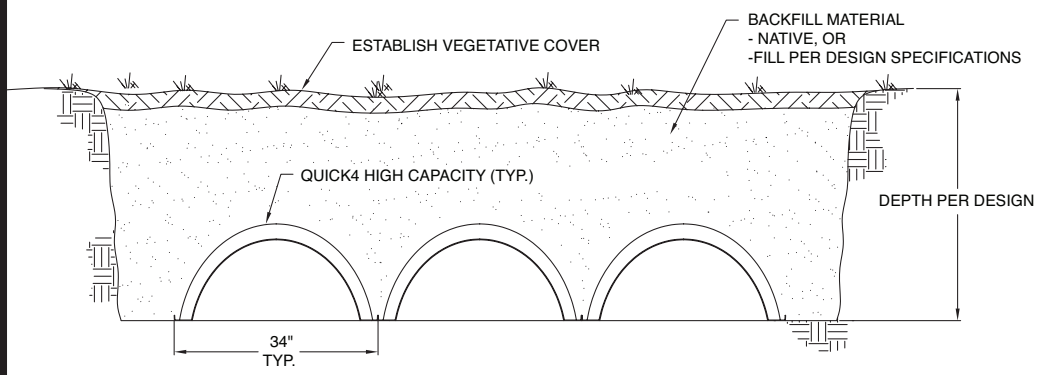
Rating: 4.72 sf/lf



Note: 6” minimum spacing between chamber rows is not required.

Typical Quick4 High Capacity Cross Section (not to scale)

Rating: 4.72 sf/lf

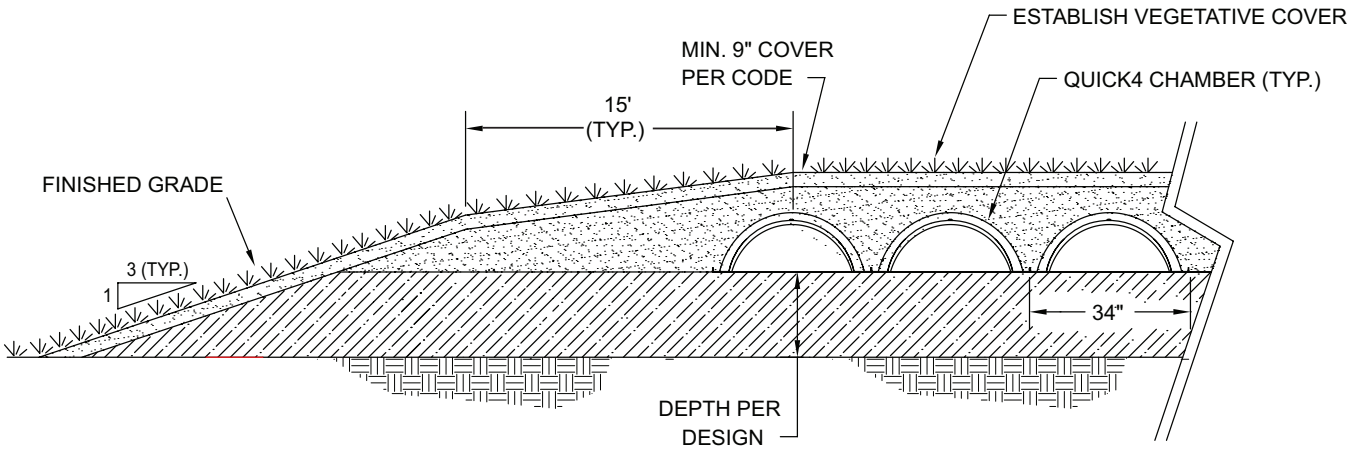


Note: 6” minimum spacing between chamber rows is not required.

QUICK4 STANDARD MOUND CONFIGURATION CONFIGURATIONS

Typical Plan View (not to scale)

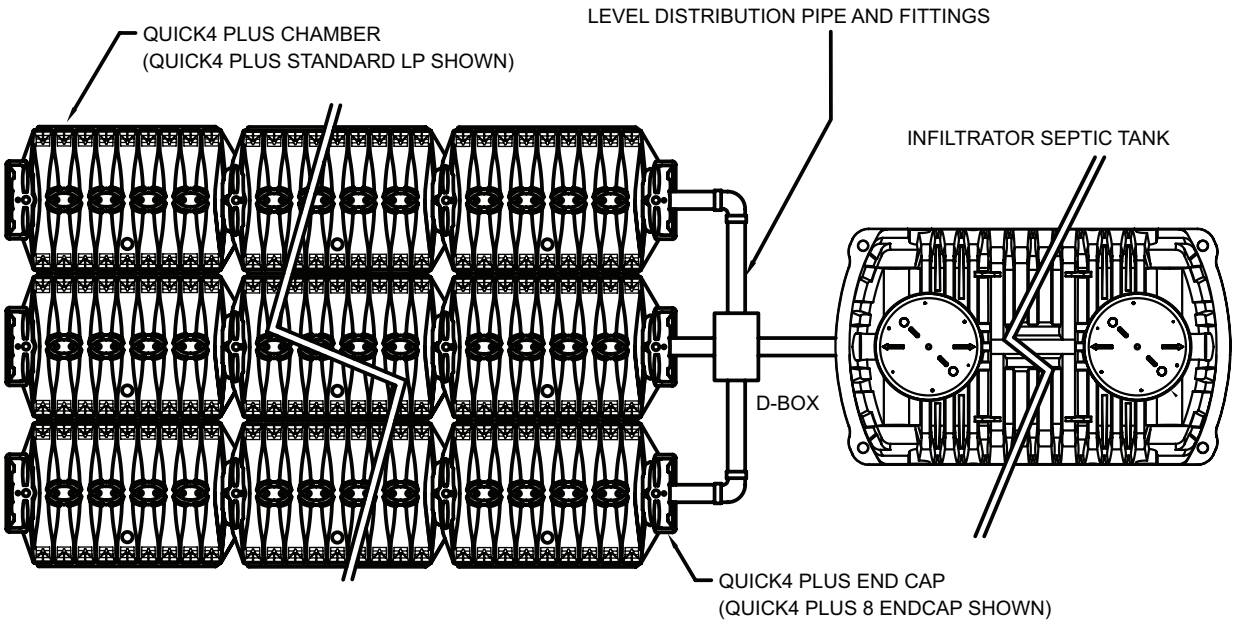
Note: 6” minimum spacing between chamber rows is not required.



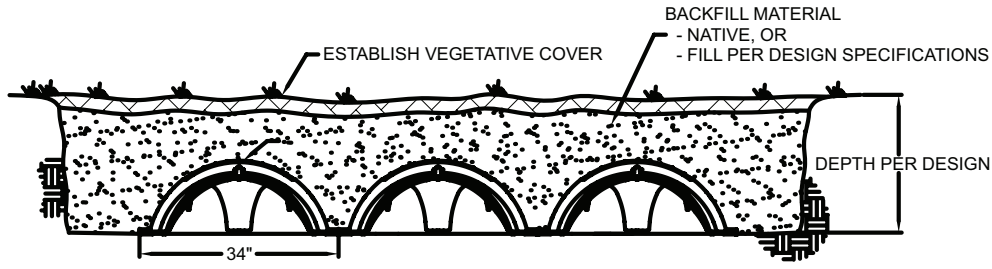
QUICK4 PLUS STANDARD AND QUICK4 PLUS STANDARD BED CONFIGURATIONS

Typical Plan View (not to scale)

Note: 6” minimum spacing between chamber rows is no longer required.



Typical Quick4 Plus Standard and Quick4 Plus Standard Low Profile (LP) Cross Section (not to scale)



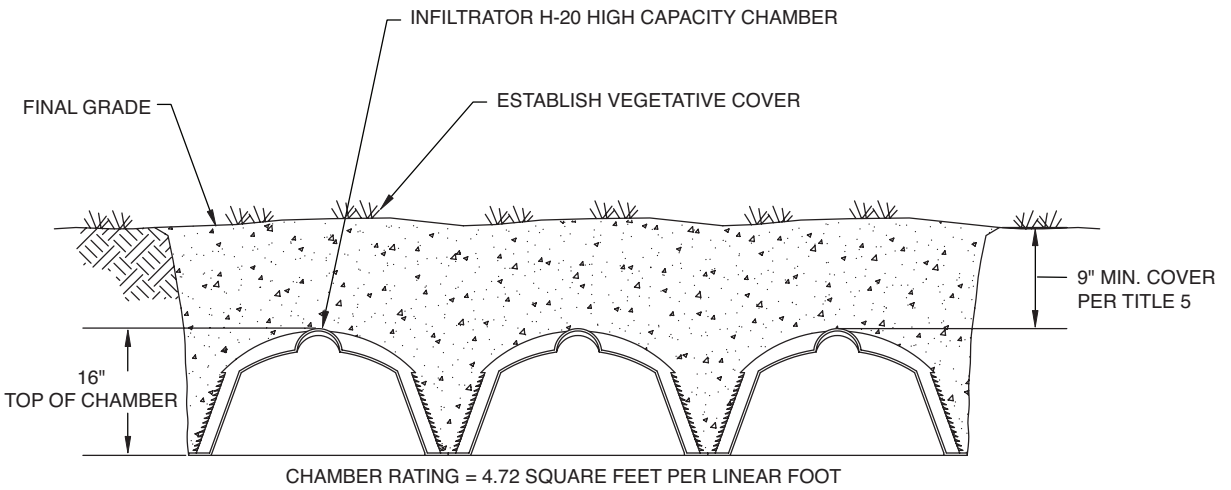
Rating: 4.72 sf/lf

Note: 6” minimum spacing between chamber rows is not required.

NON-TRAFFIC APPLICATIONS

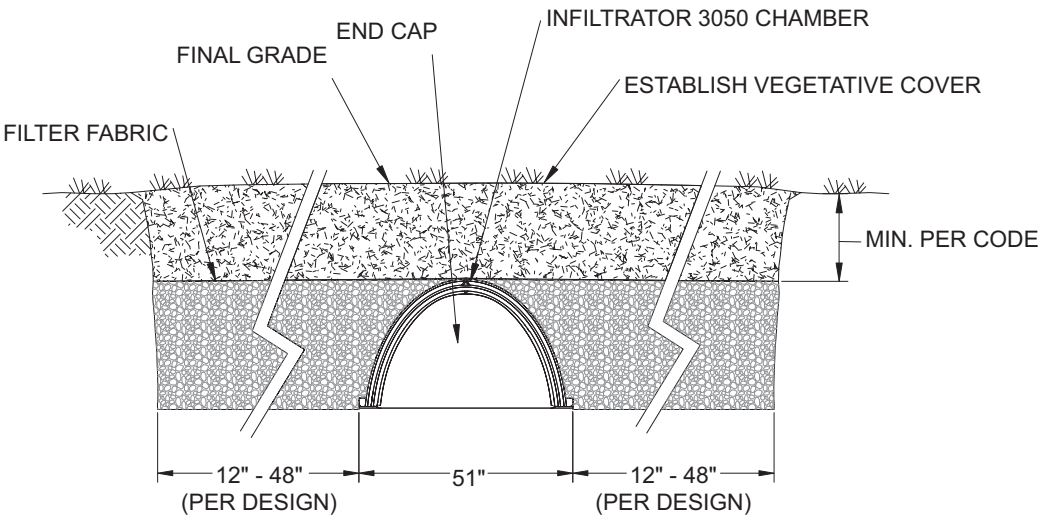
Typical High Capacity H-20 Chamber: AASHTO H-10 Wheel Load Cross Section (not to scale)

Rating: 4.72 sf/lf



Typical 3550 Chamber: AASHTO H-10 Wheel Load Gallery Cross Section (not to scale)

Rating: Varies based on stone width (see note 1).



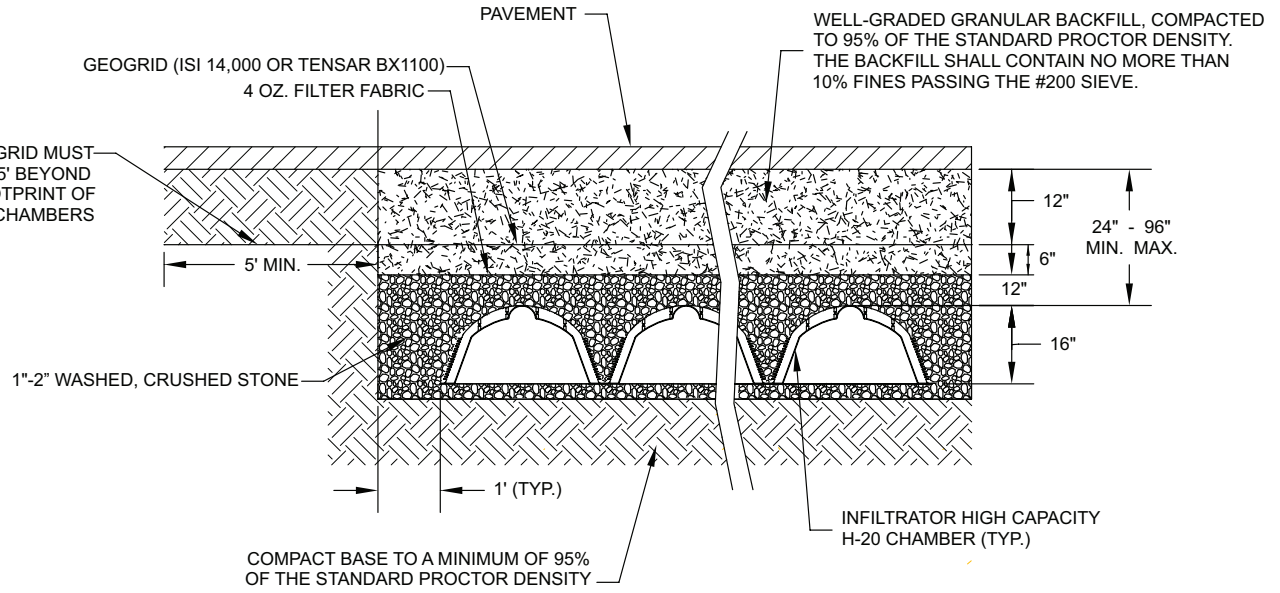
Notes:

1. System sizing based on bottom area and sidewall beneath the invert.
2. Stone must be placed 1'-2' along the sidewall of the chambers to prevent soil intrusion into the sidewall openings.

TRAFFIC APPLICATIONS

Typical High Capacity H-20 Chamber: AASHTO H-20 Wheel Load Cross Section (not to scale)

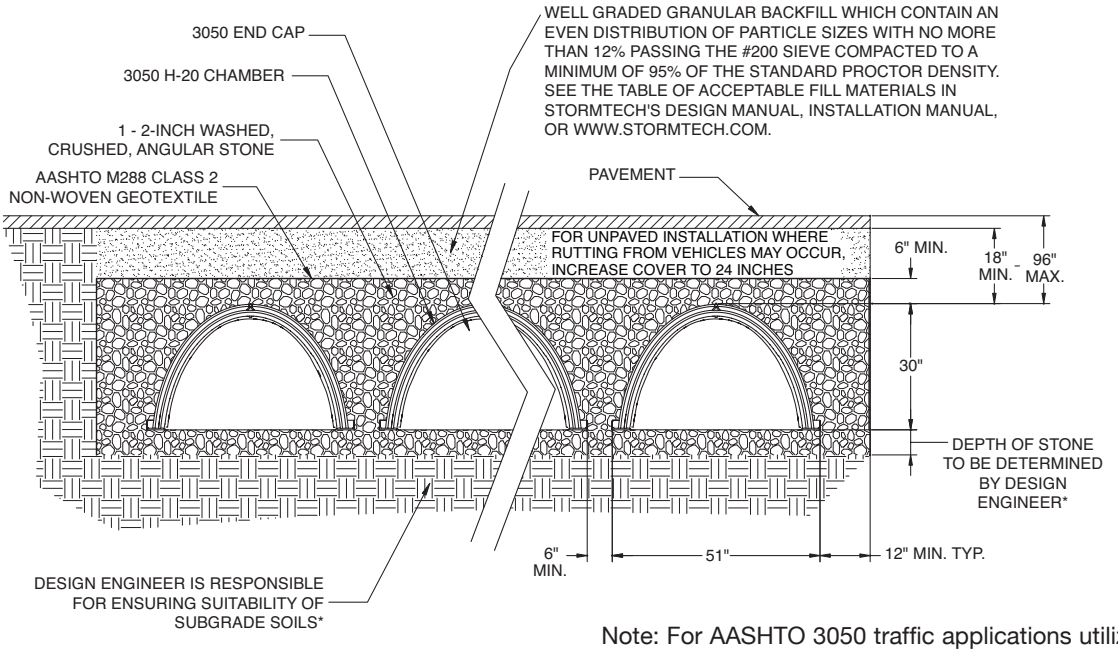
Rating: Size per 310 CMR 15.242



Note: Due to stone on the bottom of trench, these applications must be sized similarly to stone beds.

Typical 3050 Chamber: AASHTO H-20 Wheel Load Cross Section (not to scale)

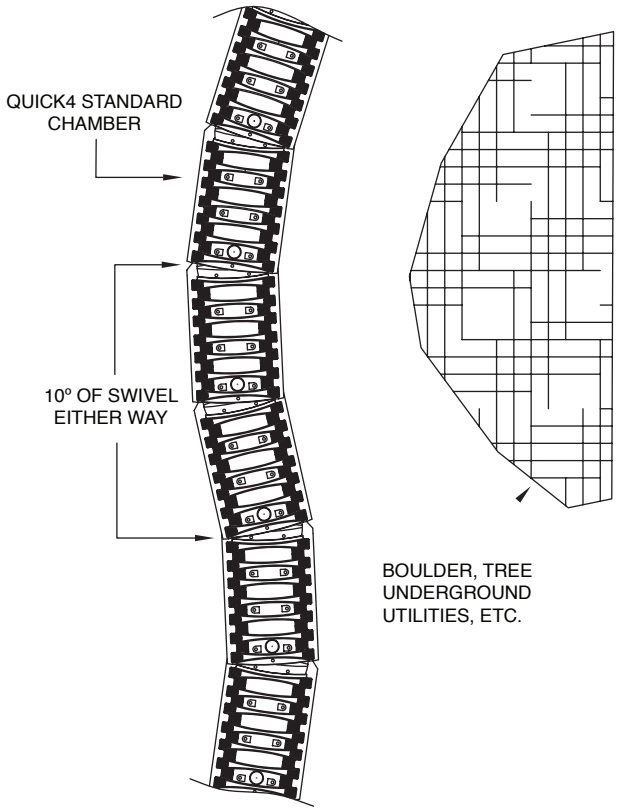
Rating: 4.25 sf/lf



Note: For AASHTO 3050 traffic applications utilizing reduction, contact your local ISI Sales Rep.

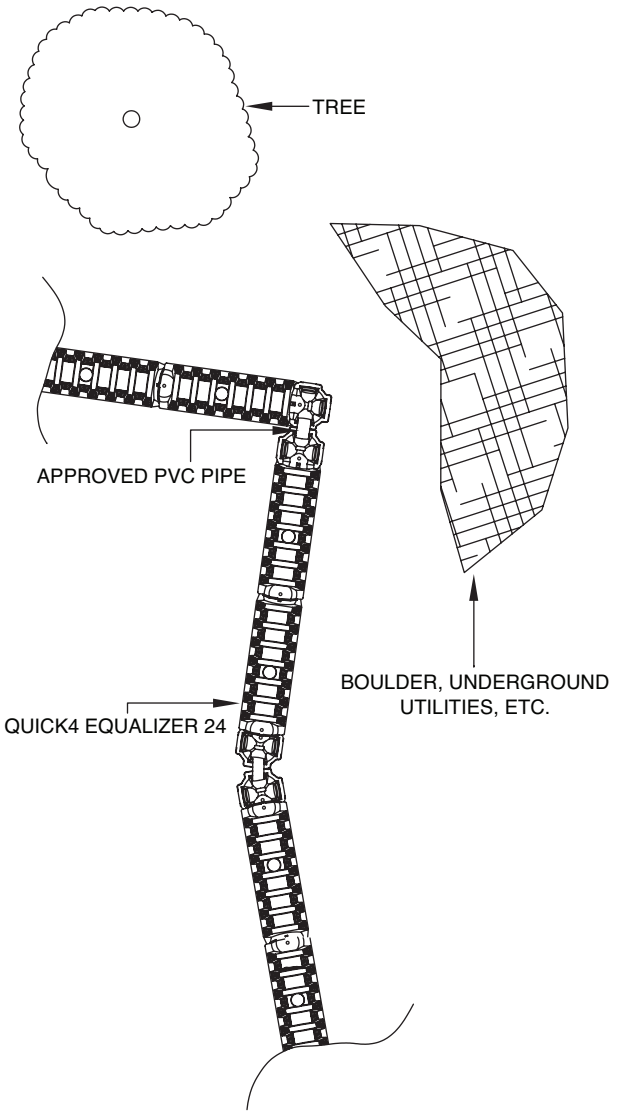
TURN DESIGN CONFIGURATIONS

Contour Swivel Connection™



The **Quick4 Chamber's Contour Swivel Connection** allows systems to be constructed on sloped sites and avoid obstructions without additional parts or accessories. The chamber easily follows contours or an "S" curve and avoids obstacles without additional parts or accessories. Each chamber connection swivels right or left.

PVC Pipe with End Plates



With two modified end plates and a short piece of elbowed pipe, the bend requirement can be easily met. This is done by using the bottom of the closed end plate with its 4-inch premarked circle as a drill-hole guide. The installer cuts out the hole and inserts the connecting pipe into the end plate. Chambers may also be connected by open end plates, resulting in serial-type loading.

Quick4 Chamber Systems

Before You Begin

Quick4 Chambers may only be installed according to State and/or local regulations. If unsure of the installation requirements for a particular site, contact the local health department.

Like conventional systems, the soil and site conditions must be approved prior to installation. Conduct a thorough site evaluation to determine the proper sizing and siting of the system before installation. The system installer must schedule

Materials and Equipment Needed

- ☐ Quick4 Chambers
- ☐ MultiPort/Low Profile Endcaps
- ☐ PVC Pipe and Couplings
- ☐ Backhoe
- ☐ Laser, Transit, or Level
- ☐ Shovel and Rake
- ☐ Tape Measure
- ☐ Utility Knife
- ☐ Hole Saw*
- ☐ 2-inch Drywall Screws*
- ☐ Screw Gun*
- ☐ Small Valve-Cover Box*
- ☐ 4-inch Cap for Inspection Port*

*Optional

These guidelines for construction machinery must be followed during installation:

- ☐ Avoid direct contact with chambers when using construction equipment. Chambers require a 12-inch minimum of compacted cover to support a wheel load rating of 16,000 lbs/axle or equivalent to an H-10 AASHTO load rating.
- ☐ Only drive across the trenches when necessary. Never drive down the length of the trenches.
- ☐ To avoid additional soil compaction, do not drive vehicles over the completed system.

Excavating and Preparing the Site

Note: As is the case with conventional systems, do not install the systems in wet conditions or in overly moist soils, as this causes machinery to smear the soil.

1. Stake out the location of all chamber lines. Set the elevations of the tank, pipe, and system bottom.

2. Install sedimentation and erosion control measures. Temporary drainage swales/berms may be installed to protect the site during rainfall events.

3. Excavate and level the bed or trenches with proper center-to-center separation. Verify that the bottom of the system is level.

Note: Over excavate the trench width in areas where the chamber line will contour.

4. Rake the bottom and sides if smearing has occurred while excavating. Remove any large stones and other debris. Do not use the bucket teeth to rake the trench bottom.

Note: Raking to eliminate smearing is not necessary in sandy soils. In fine textured soils (silts and clays), avoid walking in the trench to prevent compaction and loss of soil structure.

5. Verify that the bottom of the system is level using a level, transit, or laser.

Preparing the MultiPort Endcap

1. With a utility knife start the tear-out seal at the appropriate diameter for the inlet pipe. The seal allows for a tight fit for 3-inch, 4-inch SDR35, and 4-inch Schedule 40 pipe.

2. Pull the tab on the tear-out seal to create an opening on the endcap.

3. Snap off the molded splash plate located on the bottom front of the endcap.

4. Install splash plate into the appropriate slots below the inlet to prevent bottom erosion of the system.

5. Insert the inlet pipe into the endcap at the beginning of the chamber line. The pipe will go in several inches before reaching a stop. (Screws optional.)



Start tear-out seal.



Install splash plate.



Insert inlet pipe.

Preparing the Low Profile Endcap

1. With a hole saw, drill an opening appropriate for the pipe diameter being used (normally 3 to 4 inches) on the front of the endcap.

2. Snap off the molded splash plate located on the bottom front of the endcap.

3. Install splash plate into the appropriate slots below the inlet to prevent trench bottom erosion.

Quick4 Chamber Systems

Installing the System

For installing the Quick4 Equalizer Low Profile (LP) Chamber, see Installing the System with Q4 EQ24 LP section.

1. Check the inlet pipe to be sure it is level or has the prescribed slope. It may be firmly supported on a solid base of unexcavated soil (not required).

2. Place the inlet end of the first chamber over the back edge of the endcap so that the chamber overlaps the endcap when in place.


2

Place first chamber onto endcap.

3. Lift and place the end of the next chamber onto the previous chamber by holding it at a 45-degree angle. Line up the chamber end between the connector hook and locking pin at the top of the first chamber. Lower it to the ground to connect the chambers.

Note: When the chamber end is placed between the connector hook and locking pin at a 45° angle, the pin will be visible from the back side of the chamber.


3

Connect the chambers.

Note: The connector hook serves as a guide to insure proper connection and does not add structural integrity to the chamber joint. Broken hooks will not affect the structure nor void the warranty.

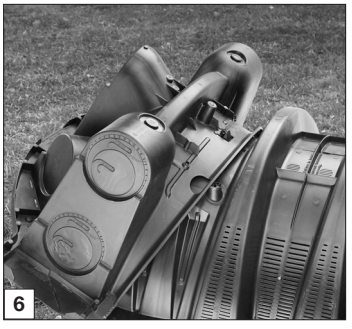
4. Swivel the chamber on the pin to the proper direction for the trench layout.

Note: The Quick4 Standard chamber and Quick4 High Capacity chamber allow 10º of swivel in either direction at each joint. The Quick4 Equalizer 36 and Quick4 Equalizer 24 allow for 15º of swivel.

5. Continue connecting the chambers until the chamber line is completed.

Note: As chambers are installed, verify they are level or have the prescribed slope to meet code requirements.

6. The last chamber in the trench requires an endcap. Lift the endcap at a 45° angle and insert the connector hook through the opening on the top of the endcap. Applying firm pressure, lower the endcap to the ground to snap it into place. Do not remove the tear-out seal.


6

Attach endcap to chamber.

7. To ensure structural stability, fill the sidewall area by pulling soil from the sides of the trench with a shovel. Start at the joints where the chambers connect. Continue backfilling the entire sidewall area, making sure the fill covers the louvers.

8. Pack down the fill by walking along the edges of the chambers.

9. Proceed to the next chamber line and begin with Step 1.

Installing the System with Q4 EQ24 LP

1. Place the first chamber in the trench or bed.

2. Place the back edge of the endcap over the inlet end of the first chamber. Be sure to line up the locking pins on the top of both the chamber and endcap.

Optional: Fasten the endcap to the chamber with a screw at the top of the endcap.

3. Insert the inlet pipe 2.5 inches into the opening on the front of the endcap.

4. Lift and place the end of the next chamber onto the previous chamber by holding it at a 45-degree angle. Line up the chamber end between the connector hook and locking pin at the top of the first chamber. Lower the chamber to the ground to connect the chambers.


4

Connect chambers.

Note: When the chamber end is placed between the connector hook and locking pin at a 45° angle, the pin will be visible from the back side of the chamber.

Note: The connector hook serves as a guide to ensure proper connection and does not add structural integrity to the chamber joint. Broken hooks will not affect the structure or void the warranty.

5. For a trench layout, swivel the chamber on the pin to achieve the proper direction for the chamber line.

6. Continue connecting the chambers until the trench or bed is completed.

Quick4 Chamber Systems

Attaching the Q4 EQ24 LP Endcaps

1. Lift the endcap at a 45° angle and align the connector hook on the top of the chamber with the raised slot on the top of the endcap. Lower the endcap to the ground and into place.

Note: Place a few shovels of soil around the endcap to secure it during backfill.



Attach endcap to last chamber.

Installing Optional Inspection Ports

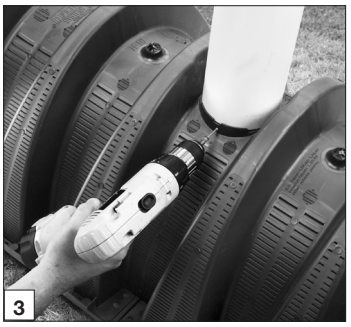
1. With a hole saw, drill the pre-marked area in the top of the chamber to create a 4-inch opening.

2. Set a cut piece of pipe of the appropriate length into the corresponding chamber's inspection port sleeve.

Note: The sleeve will accommodate a 4-inch Schedule 40 pipe.

3. Use two screws to fasten the pipe to the sleeve around the inspection port.

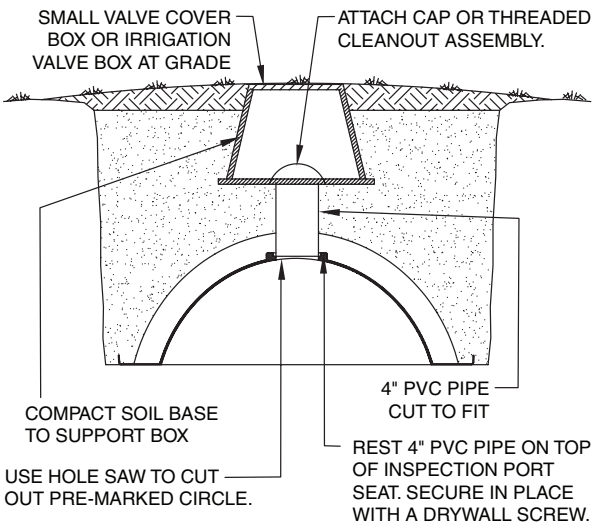
4. Attach a threaded cap or cleanout assembly onto the protruding pipe at the appropriate height.



Fasten the pipe.

5. A small valve cover box may be used if inspection port is below the desired grade.

INSPECTION PORT DETAIL ***(Not to scale)***



Covering the System

Before backfilling, the system must be inspected by a health officer or other official as required by State and local codes. Create an as-built drawing at this time for future records.

1. Apply the desired backfill material along the sides of the chambers and walk the soil in.



Walk the soil in.

2. Continue backfilling the soil to the top of chambers.

Note: When backfilling a wide excavation or soil substitution system use a dozer, small box blade or a tracked Bobcat machine.



Backfill the soil.

Quick4 Plus Chamber Systems

Before You Begin

This document addresses the installation of Quick4 Plus Standard Low Profile (LP) and Quick4 Plus Equalizer 36 Low Profile (LP) chambers. The Quick4 Plus Standard LP and Quick4 Plus Equalizer 36 LP chambers are designed for shallow placement applications. All chambers may only be installed according to state and/or local regulations. If unsure of the installation requirements for a particular site, contact the local health department. Like conventional systems, soil and site conditions must be approved prior to installation. Conduct a thorough site evaluation to determine proper sizing and siting of system before installation.

Materials and Equipment Needed

- ☐ Quick4 Plus Chambers
- ☐ Quick4 Plus 8 Endcaps
- ☐ Quick4 Plus All-in-One 8 Endcaps
- ☐ PVC Pipe and Couplings
- ☐ Backhoe
- ☐ Laser, Transit, or Level
- ☐ Shovel and Rake
- ☐ Tape Measure
- ☐ Utility Knife
- ☐ Hole Saw*
- ☐ 1 1/2-inch Drywall Screws*
- ☐ Screw Gun*
- ☐ Small Valve-Cover Box*
- ☐ 3 or 4-inch Threaded Plug for Inspection Port*

*Optional

These guidelines for construction machinery must be followed during installation:

- ☐ Avoid direct contact with chambers when using construction equipment. Chambers require a 12-inch minimum of compacted cover to support a wheel load rating of 16,000 lbs/axle or equivalent to an H-10 AASHTO load rating.
- ☐ **When installing in sandy soil conditions, wheeled construction equipment is prohibited over top of system. Tracked equipment can be used over top of system with a minimum of 6" of soil cover.**
- ☐ Avoid stones larger than 3 inches in diameter in backfill Remove stones this size or larger.

Excavating and Preparing the Site

Note: As is the case with conventional systems, do not install systems in wet conditions or in overly moist soils, as this causes machinery to smear the soil.

1. Stake out location of all trenches and lines. Set elevations of tank, pipe, and trench bottom.

2. Install sedimentation and erosion control measures. Temporary drainage swales/berms may be installed to protect site during rainfall.

3. Excavate and level trenches with proper width and center-to-center separation. Verify that trenches are level or have the prescribed slope.

Note: Over excavate n areas where you are planning to contour.

4. Rake bottom and sides if smearing has occurred while excavating. Remove any large stones and other debris. Do not use bucket teeth to rake trench bottom.

Note: Raking to eliminate smearing is not necessary in sandy soils. In fine textured soils (silts and clays), avoid walking in the trench to prevent compaction and loss of soil structure.

Preparing the Endcap



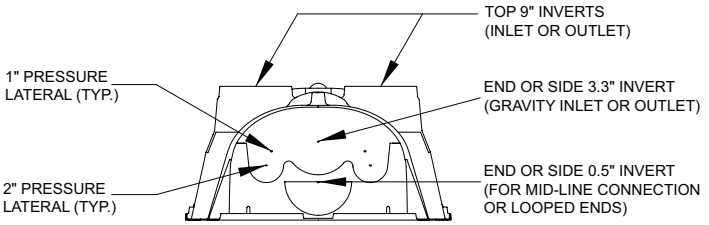
Drill endcap.

Note: Quick4 Plus 8 and Quick4 Plus All-in-One 8 Endcaps are avaliable for use with the Quick4 Plus Standard LP and Quick4 Equalizer 36LP chambers on either end of the trench, depending upon the installer's preference and configuration requirements.

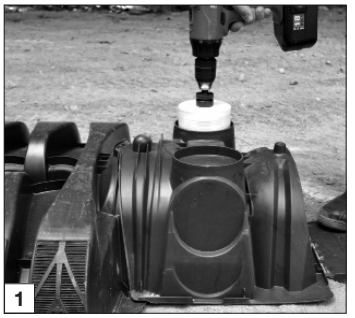
1. With a hole saw, drill an opening appropriate for pipe diameter being used (normally 3-4") on front or side of endcap using center point marking (see illustration) as a guide.

2. Snap off the molded splash plate located on the bottom front of the endcap.

3. Install splash plate into the appropriate slots below the inlet to prevent trench bottom erosion.



Installing the Quick4 Plus Periscope



Drill Quick4 Plus Periscope.

Note: Available for use with Quick4 Plus All-in-One Endcap only. Invert options based on system design.

1. With a 4" hole saw drill the pre-marked area on top of the Quick4 Plus All-in-One Endcap.

2. Insert the Quick4 Plus Periscope into top of the Quick4 Plus All-in-One Endcap. Insert the Quick4 Plus Periscope until it snaps into place.

3. Insert a 4" Schedule 40 PVC pipe into the Quick4 Plus Periscope at the appropriate locations for the system design.

4. Rotate Quick4 Plus Periscope to desired angle.



Connect inlet pipe.

Quick4 Plus Chamber Systems

Installing Quick4 Plus All-in-One Endcap as a Mid-line Connection


1

Note: See mid-line piping options on the back of this document.

1. With a hole saw drill an opening appropriate for the pipe diameter being used on the side (3.3" invert) or on top (9.0" invert) of the Quick4 Plus All-in-One Endcap.

Note: Piping configurations are determined by the preference of the installer or designer.

2. With a hole saw, drill an opening on the end of the Quick4 Plus All-in-One Endcap to create an invert at 0.5 inches. This will allow effluent to fill both sides of the chamber line.


2

Drill endcap.

2. Snap off the molded splash plate located on the bottom front of the endcap.

3. Install splash plate into the appropriate slots below the inlet to prevent trench bottom erosion.

4. Place the back edge of the endcap over the inlet end of the first chamber. Be sure to line up the locking pins on the top of both the chamber and endcap.

Optional: Fasten endcap to chamber with a screw at the top of endcap.

5. Insert the connection pipe 2.5" into the opening on endcap.

6. Repeat Steps 1 through 5 for additional trenches.

Pressure Distribution Systems Quick4 Standard & Quick4 High Capacity

Before You Begin

Quick4 chambers can only be installed according to state and/or local regulations. Contact your local health department for specific requirements.

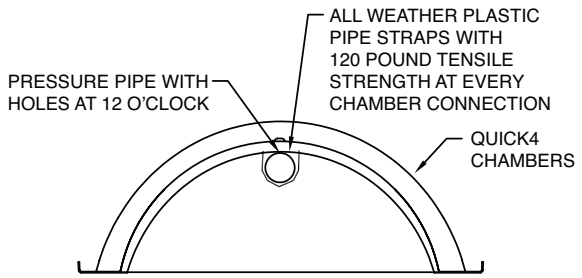
Soil and site conditions must be approved prior to installation. Conduct a thorough site evaluation to determine proper sizing and siting of the system before installation. The system installer must schedule required regulatory inspections.

These guidelines must be followed during installation:

- ☐ Avoid direct contact with chambers when using construction equipment. Chambers require a 12-inch minimum of compacted cover to support a wheel load rating of 16,000 lbs/axle or equivalent to an H-10 AASHTO load rating.
- ☐ Only drive across the trenches when necessary. Do not drive wheeled machinery over chambers.
- ☐ Avoid stones larger than 3 inches in diameter in backfill. Remove stones this size or larger that are in contact with chambers.

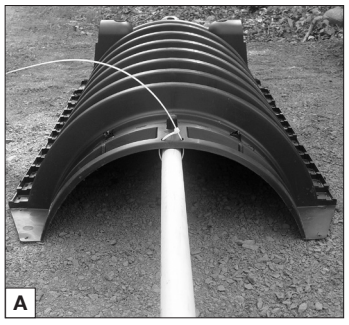
Pressure Pipe Design Options

METHOD A TOP PLACEMENT

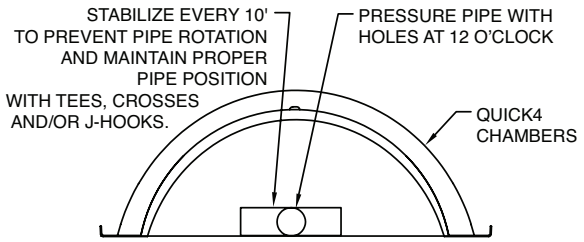


Advantages of Method A

- Pipe and orifice placed closer to the chamber dome offer improved distribution.
- Pipe positioned at the top of the chamber places it well above effluent.
- Plastic pipe hanger easily secures pipe in place.

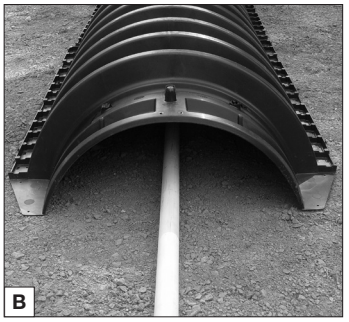


METHOD B BOTTOM PLACEMENT



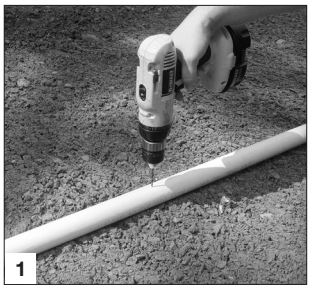
Advantages of Method B

- Pipe resting on the trench bottom allows easy installation and maintenance.
- Stabilizing tees, crosses or J-hooks keep pipe level.
- System promotes efficient pressure checks.
- Pipe resting on the trench bottom allows easier inspection if monitoring ports are installed.



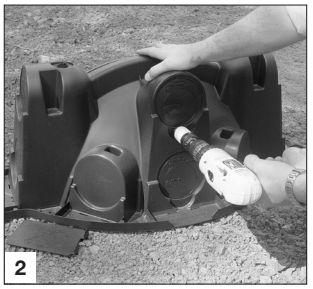
Installing the Chambers and Endcaps

1. To allow pressure laterals to drain after each dose, drill a hole in the bottom of the pipe at the beginning and end of the pressure line. Place the snap-off splash plate or a paving block at the bottom of the chamber line to protect the infiltrative surface from erosion.



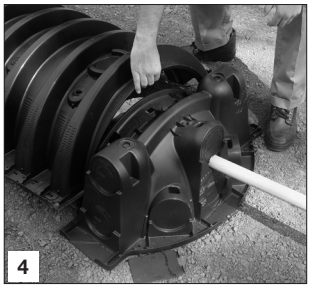
2. With a hole saw, drill out the appropriate diameter hole to accommodate the pressure lateral pipe.

3. Insert the pressure lateral pipe into the endcap's drilled opening and slide it into the manifold pipe. Glue the pressure lateral pipe to the manifold pipe.



4. With the pressure lateral pipe through the endcap, place the inlet end of the first chamber over the back edge of the endcap.

Note: Health departments may require a wet-run pressure check be performed prior to chamber installation when the pipe is laying on the ground. Check with your local health department for the proper procedure.



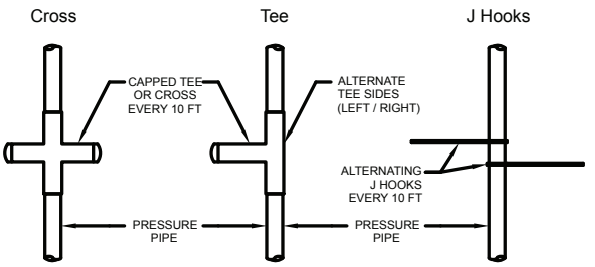
Pressure Distribution Systems Quick4 Standard & Quick4 High Capacity

5. (Method A) Secure the pressure lateral pipe to the top of the first chamber with a plastic pipe strap at the outlet end of the unit. Slide the strap up through a slot in the chamber top, down through the other slot, and cinch the two ends around the pipe.



Secure with plastic strap.

6. (Method B) With the holes pointing up, stabilize the pressure lateral pipe on the ground to prevent it from moving by using tees, crosses or J-hooks.



7. Lift and place the next chamber onto the previous one at a 45°angle. Line up the chamber end between the connector hook and locking pin at the top of the first chamber. Lower it to the ground to engage the interlocks.

8. (Method A) Secure the lateral pipe to the top of the next chamber once in place. Follow the same method in Step 5.

9. Continue interlocking chambers and securing the pipe until the chamber line is completed.

10. Before attaching the final endcap, remove the tongue of the connector hook on the last chamber with a pair of pliers.



Remove tongue of connector.

11. Insert the pressure lateral pipe through the hole in the final endcap and slide the endcap toward the last chamber. Lift the endcap over the modified connector hook and push straight down to secure it to the chamber.

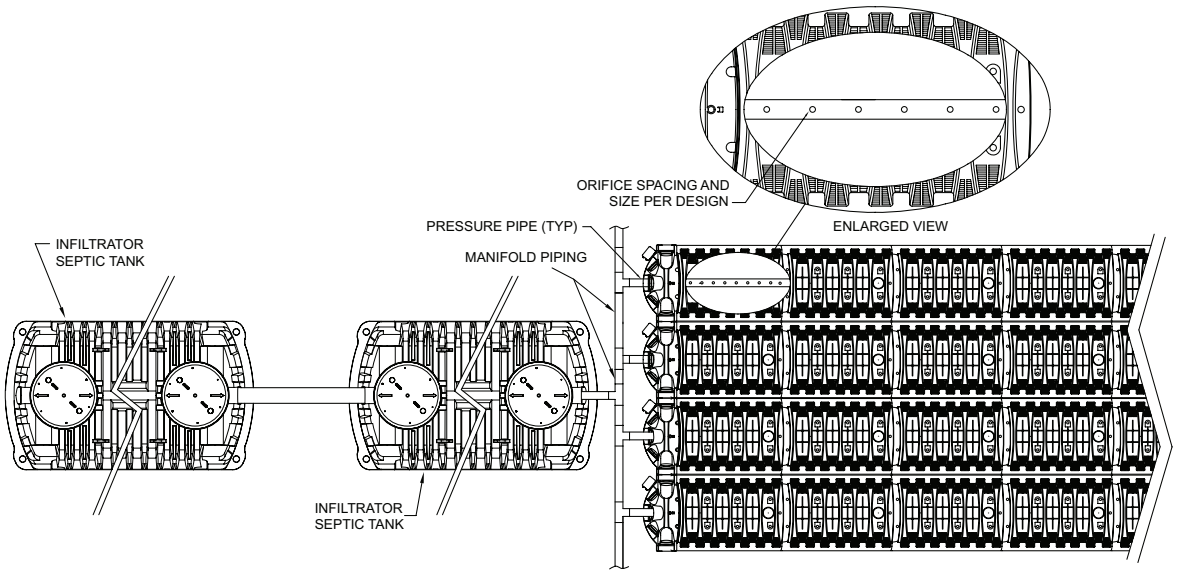
Note: If cleanout extensions are required, use a hole saw to cut a hole in the endcap at the proper elevation so that the lateral pipe can extend. For clean-out access, a 90-degree elbow that extends to the ground surface can be attached to the lateral pipe.



Insert pressure pipe.

12. If installing multiple rows of chambers, follow Steps 1-9 to lay the next row of chambers parallel to the first.

Typical Low Pressure Dose for Quick4 Chambers Plan View (not to scale)



Pressure Distribution Systems Quick4 Plus Standard & Quick4 Plus Standard LP

Before You Begin

Quick4 chambers can only be installed according to state and/or local regulations. Contact your local health department for specific requirements.

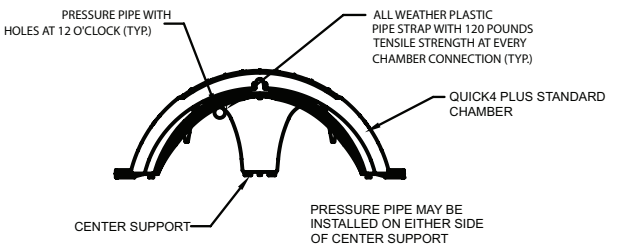
Soil and site conditions must be approved prior to installation. Conduct a thorough site evaluation to determine proper sizing and siting of the system before installation. The system installer must schedule required regulatory inspections.

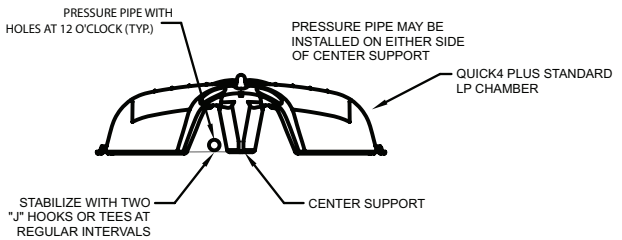
These guidelines must be followed during installation:

- ☐ Avoid direct contact with chambers when using construction equipment. Chambers require a 12-inch minimum of compacted cover to support a wheel load rating of 16,000 lbs/axle or equivalent to an H-10 AASHTO load rating.
- ☐ Only drive across the trenches when necessary. Do not drive wheeled machinery over chambers.
- ☐ Avoid stones larger than 3 inches in diameter in backfill. Remove stones this size or larger that are in contact with chambers.

Pressure Pipe Design Options

METHOD A TOP PLACEMENT

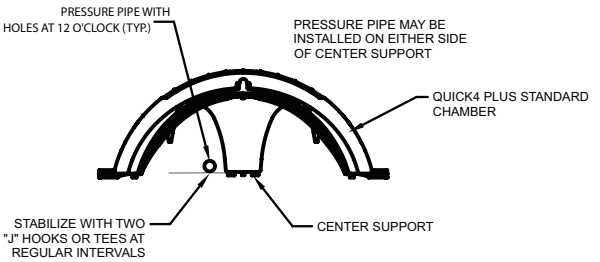


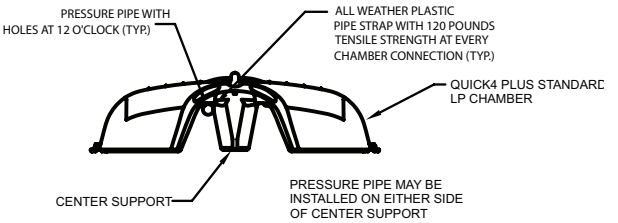


Advantages of Method A

- Pipe and orifice placed closer to the chamber dome offer improved distribution.
- Pipe positioned at the top of the chamber places it well above effluent.
- Plastic pipe hanger easily secures pipe in place.

METHOD B BOTTOM PLACEMENT





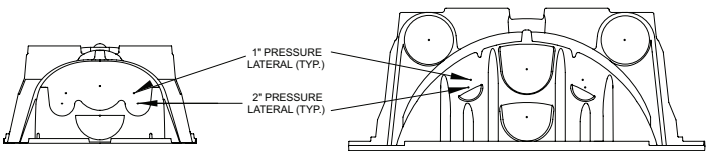
Advantages of Method B

- Pipe resting on the trench bottom allows easy installation and maintenance.
- Stabilizing “T’s” or J-hooks keep pipe level.
- System promotes efficient pressure checks.
- Pipe resting on the trench bottom allows easier inspection if monitoring ports are installed.

Installing the Chambers and Endcaps

Note: Pressurized systems can be constructed with either the Quick4 Plus 8 Endcap, the Quick4 Plus All-in-One 8 Endcap, or the Quick4 Plus All-in-One 12 Endcap.

1. The Quick4 Plus All-in-One 12 Endcap is compatible with the Quick4 Plus Standard chamber. The Quick4 Plus All-in-One 8 Endcap and Quick4 Plus 8 Endcap are compatible with the Quick4 Plus LP chambers.

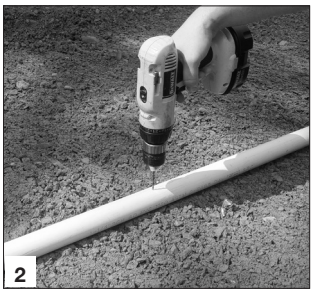


Quick4 Plus All-in-One 8 Endcap

Quick4 Plus All-in-One 12 Endcap

Note: Endcap photos shown throughout this document are for demonstrative purposes only. The endcap being used may differ and is dependent upon the chamber being used and system design.

Pressure Distribution Systems Quick4 Plus Standard & Quick4 Plus Standard LP


2

2. To allow pressure laterals to drain after each dose, drill a hole in the bottom of the pipe at the end of the pressure line. Place the snap-off splash plate or a paving block at the bottom of trench to protect infiltrative surface from erosion.

3. With a hole saw, drill out the appropriate diameter hole to accommodate the pressure lateral pipe.

4. Insert the pressure lateral pipe into the endcap's drilled opening and slide it into the manifold pipe. Glue the pressure lateral pipe to the manifold pipe.

5. With the pressure lateral pipe through the endcap, place the back edge of the endcap over the inlet end of the first chamber. Be sure to line up the locking pins on the top of both the chamber and endcap.

Note: Health departments may require a wet-run pressure check to be done prior to chamber installation when the pipe is laying on the ground. Check with your local health department for the proper procedure.

6. (Method A) Secure the pressure lateral pipe to the top of the first chamber with a plastic pipe strap at the outlet end of the unit. Slide the strap up through a slot in the chamber top, down through the other slot, and cinch the two ends around the pipe.

Note: (Method B) With the holes pointing up, stabilize the pressure lateral pipe on the ground to prevent it from moving by using tees, crosses or J-hooks.

7. Lift and place the next chamber onto the previous one at a 45-degree angle. Line up the chamber end between the connector hook and locking pin at the top of the first chamber. Lower it to the ground to engage the interlocks.

8. (Method A) Secure the lateral pipe to the top of the next chamber once in place. Follow the same method in Step 5.

9. Continue interlocking chambers and securing the pipe until the trench is completed.

10. Before attaching the final endcap, it may be necessary to remove the tongue of the connector hook on the last chamber with a pair of pliers depending on your pipe diameter.

11. Insert the pressure lateral pipe through the hole in the final endcap and slide the endcap toward the last chamber. Lift the endcap over the modified connector hook and push straight down to secure it to the chamber.

Note: If clean-out extensions are required, use a hole saw to cut a hole in the top of the Quick4 Plus All-in-One 8 Endcap or Quick4 Plus All-in-One 12 Endcap so the pressure lateral pipe with an elbow can extend to the ground surface. For clean-out access, use the "Installing Optional Inspection Ports" section in the general installation instructions.

12. If installing multiple rows of chambers, follow Steps 1-9 to lay the next row of chambers parallel to the first. Keep a minimum separation distance between each row of chambers as required by local code.

Installing the Chambers and Endcaps

Note: Pressurized systems can be constructed with either the Quick4 Plus 8 Endcap, the Quick4 Plus All-in-One 8 Endcap, or the Quick4 Plus All-in-One 12 Endcap.

1. The Quick4 Plus All-in-One 12 Endcap is compatible with the Quick4 Plus Standard chamber. The Quick4 Plus All-in-One 8 Endcap and Quick4 Plus 8 Endcap are compatible with the Quick4 Plus LP chambers.

Note: Endcap photos shown throughout this document are for demonstrative purposes only. The endcap being used may differ and is dependent upon the chamber being used and system design.

2. To allow pressure laterals to drain after each dose, drill a hole in the bottom of the pipe at the end of the pressure line. Place the snap-off splash plate or a paving block at the bottom of trench to protect infiltrative surface from erosion.

3. With a hole saw, drill out the appropriate diameter hole to accommodate the pressure lateral pipe.

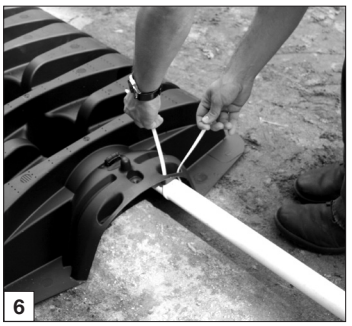

3
Drill pressure pipe hole.

4. Insert the pressure lateral pipe into the endcap's drilled opening and slide it into the manifold pipe. Glue the pressure lateral pipe to the manifold pipe.

5. With the pressure lateral pipe through the endcap, place the back edge of the endcap over the inlet end of the first chamber. Be sure to line up the locking pins on the top of both the chamber and endcap.
Note: Health departments may require a wet-run pressure check to be done prior to chamber installation when the pipe is laying on the ground. Check with your local health department for the proper procedure.


5
Place endcap over inlet end.

6. (Method A) Secure the pressure lateral pipe to the top of the first chamber with a plastic pipe strap at the outlet end of the unit. Slide the strap up through a slot in the chamber top, down through the other slot, and cinch the two ends around the pipe.
Note: (Method B) With the holes pointing up, stabilize the pressure lateral pipe on the ground to prevent it from moving by using tees, crosses or J-hooks.


6
Secure pressure pipe.

Pressure Distribution Systems Quick4 Plus Standard & Quick4 Plus Standard LP

7. Lift and place the next chamber onto the previous one at a 45-degree angle. Line up the chamber end between the connector hook and locking pin at the top of the first chamber. Lower it to the ground to engage the interlocks.

8. (Method A) Secure the lateral pipe to the top of the next chamber once in place. Follow the same method in Step 5.

9. Continue interlocking chambers and securing the pipe until the trench is completed.


10

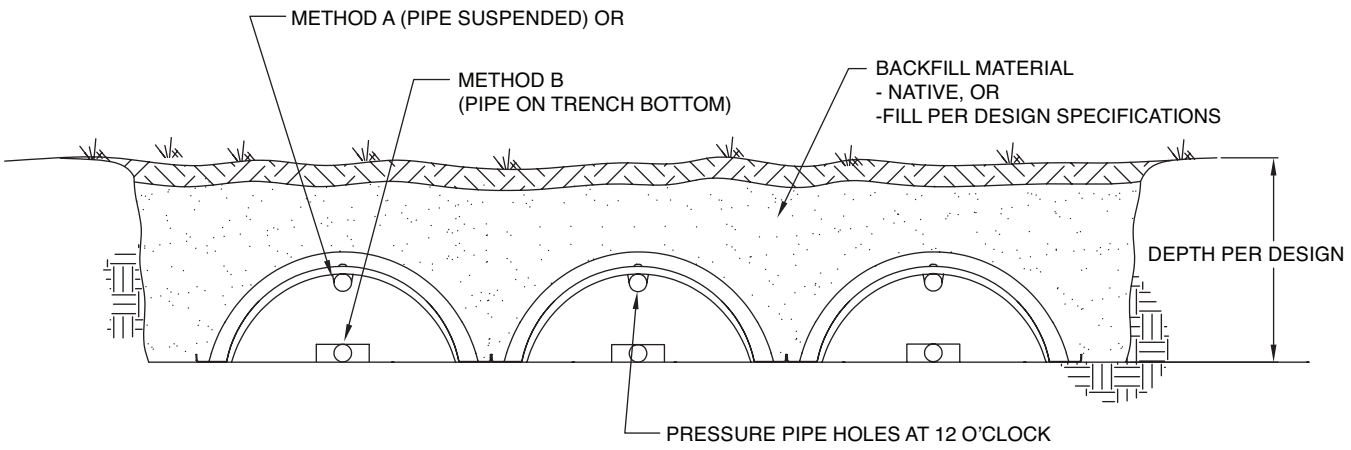
10. Before attaching the final endcap, it may be necessary to remove the tongue of the connector hook on the last chamber with a pair of pliers depending on your pipe diameter.

11. Insert the pressure lateral pipe through the hole in the final endcap and slide the endcap toward the last chamber. Lift the endcap over the modified connector hook and push straight down to secure it to the chamber.

Note: If clean-out extensions are required, use a hole saw to cut a hole in the top of the Quick4 Plus All-in-One 8 Endcap or Quick4 Plus All-in-One 12 Endcap so the pressure lateral pipe with an elbow can extend to the ground surface. For clean-out access, use the “Installing Optional Inspection Ports” section in the general installation instructions.

12. If installing multiple rows of chambers, follow Steps 1-9 to lay the next row of chambers parallel to the first. Keep a minimum separation distance between each row of chambers as required by local code.

Pressure Distribution Detail: Quick4 Standard Chamber Bed (not to scale)

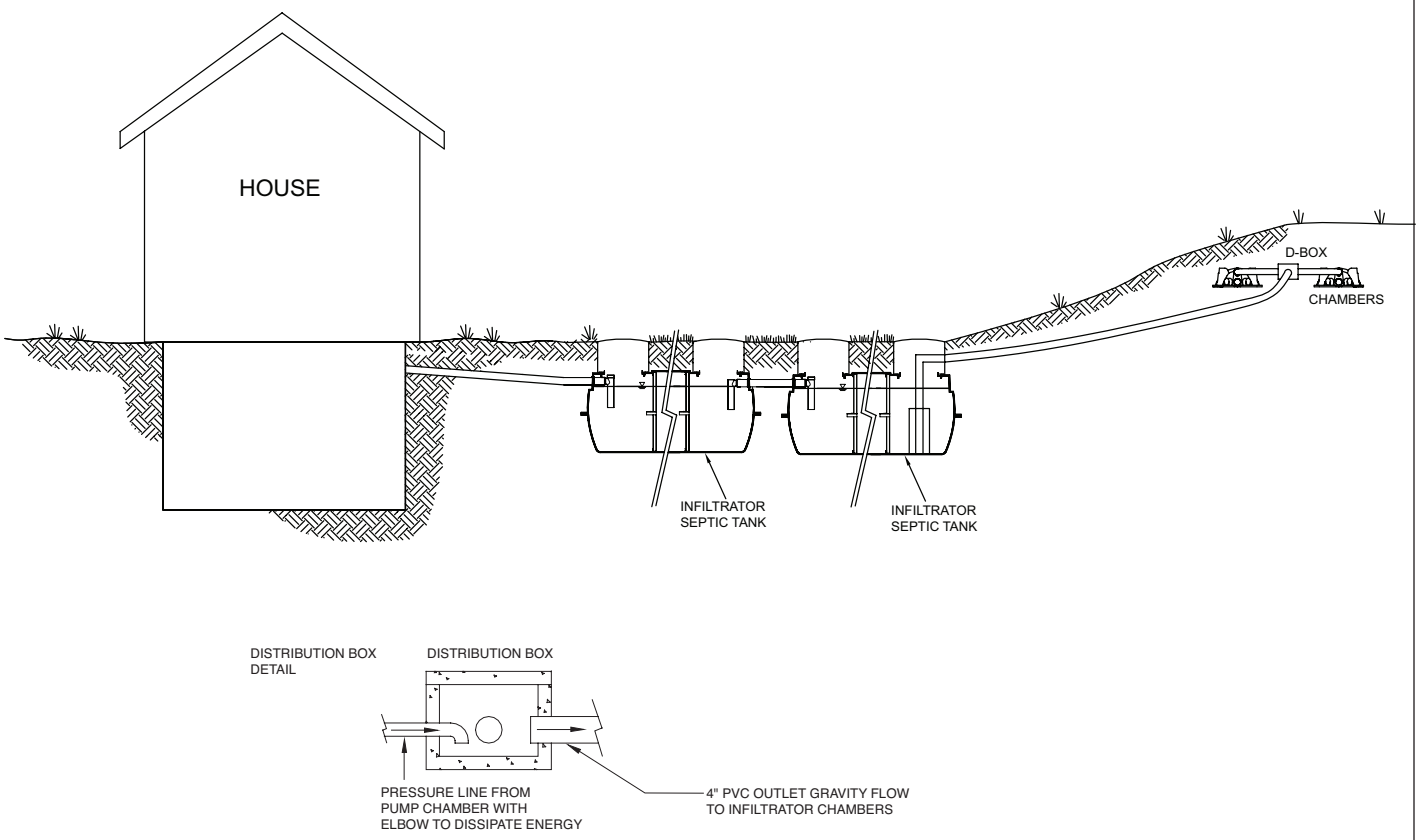


Pressure Distribution Systems Quick4 Plus Standard & Quick4 Plus Standard LP

Pressure to Gravity Distribution Systems

In a pressure to gravity system, the effluent is pumped to a distribution box which receives a predetermined dosing volume of effluent. It is then gravity fed to the leaching area and distributed to the rows or trenches within the leachfield. The main difference between the two lies in how the effluent is distributed within each trench. In a pressure dosed system, the effluent is distributed throughout the trench with a pressurized pipe. In a pressure to gravity system, the effluent is gravity fed as shown below.

Pressure to Gravity System (not to scale)



INSTALLATION INSTRUCTIONS

3050 Chamber Systems

Before You Begin

Infiltrator 3050 Chambers may only be installed according to State and/or local regulations. If unsure of the installation requirements for a particular site, contact the local health department.

Like conventional systems, the soil and site conditions must be approved prior to installation. Conduct a thorough site evaluation to determine the proper sizing and siting of the system before installation.

Materials and Equipment Needed

- ☐ Infiltrator 3050 Chambers
- ☐ Endcaps
- ☐ PVC Pipe and Couplings
- ☐ Backhoe
- ☐ Bull Dozer*
- ☐ Laser, Transit, or Level
- ☐ Shovel and Rake
- ☐ Tape Measure
- ☐ Utility Knife
- ☐ Hole / Reciprocating Saw
- ☐ 2-inch Drywall Screws*
- ☐ Screw Gun*
- ☐ Splash Plates
- ☐ Stakes*
- ☐ Small Valve-Cover Box*
- ☐ 4-inch Cap for Inspection Port*
- ☐ 1”-2” Washed Stone
- ☐ Geotextile (non-woven min. 2.4 oz/yard^2

*Optional

These guidelines for construction machinery must be followed during installation:

- ☐ Avoid direct contact with chambers when using construction equipment. Chambers require a 12-inch minimum of compacted cover to support a wheel load rating of 16,000 lbs/axle or equivalent to an H-10 AASHTO load rating.
- ☐ For non-traffic applications, only drive across the trenches when necessary. Never drive down the length of the trenches.

Excavating and Preparing the Site

Note: As is the case with conventional systems, do not install the systems in wet conditions or in overly moist soils, as this causes machinery to smear the soil.

1. Stake out the location of of each system component per plan. Set the elevations of the tank, pipe, and trench/bed bottom.

2. Install sedimentation and erosion control measures. Temporary drainage swales/berms may be installed to protect the site during rainfall events.

3. Excavate and level the bed or trenches with proper center-to-center separation. Verify that the trenches or bed are level or have the prescribed slope.

4a. For non-traffic applications, excavate to a depth that allows for chamber installation on native or replacement soil.

4b. For AASHTO H-20 wheel load applications, over-excavate to allow placement of crushed stone layer (thickness to be per design).

5. Rake the bottom (does not apply to crushed stone bottom) and sides if smearing has occurred while excavating. Remove any large stones or other debris. Do not use the teeth of the backhoe bucket in lieu of raking to scarify the trench bottom.

Note: Raking to eliminate smearing is not necessary in sandy soils.

6. Verify that trenches or bed is level using a level, transit, or laser.

Attaching the Endcaps

1. Locate the uppermost pilot hole on the endcap.

2. Begin drilling the inlet pipe opening with the hole saw oriented perpendicular to the endcap.

3. As the hole saw begins to penetrate the endcap, rotate the drill and hole saw parallel with the bottom of trench or bed to create a level pipe inlet opening.

4. Verify that the inlet pipe invert is at 23.5 inches.

5. Place the inlet pipe in its final position for insertion into hole in endcap. Place backfill over a segment of the pipe to stabilize it during endcap and chamber connection.

6. Slide the endcap over the in-place inlet pipe. Verify that the inlet pipe has penetrated the endcap a minimum of 1.0 inch and a maximum of 1.5 inches to allow for placement of the chamber over the endcap.

7. Secure the inlet pipe to the endcap with a screw at the 12 o’clock position.



Locate pilot hole on endcap.



Start perpendicular to endcap.



Rotate drill parallel to ground.



Place chamber over endcap.

INSTALLATION INSTRUCTIONS

3050 Chamber Systems

Installing the Chambers

1. Check the header pipe to be sure that it is level.

2. Verify the inlet pipe invert of 23.5 inches from the bottom of the trench or bed to the bottom of the inlet of the 3050 chambers.

3. Orient the first chamber so that the end labeled “Build Rows In This Direction” is closest to where the inlet pipe is located and the arrows point in the direction of the build.



Chamber/Endcap connection.

4. Lift the open end of the chamber approximately 6 inches off the ground. With the curved face of the endcap facing outward, place the endcap into the chamber’s end corrugation. The chamber will cover the edge of the endcap and rest on the inlet pipe.

5. Connect the chambers by overlapping the end corrugation of one chamber onto the end corrugation of the last chamber.

6. Continue installing the remaining chambers until the chamber line is complete and endcaps are placed on the end of each row.

7. Proceed to the next chamber line and begin with Step 1 of Attaching the Endcaps.

Covering the System

1. Using washed stone ranging from 1 to 2 inches in diameter that is free of iron, fines and dust, fill around the sidewall to the elevation indicated on the approved system design. Rake the stone level.

2. Cover the stone with a nonwoven geotextile (minimum 2.5 oz/yard^2).

3. Backfill by pushing soil onto the filter fabric to the depth indicated in the approved system design.

Note: For non-traffic applications, avoid vehicular traffic over the system.

4. For non-traffic applications, it is best to leave several inches of soil above ground level to allow for settling. This ensures that surface runoff is diverted away from the system.

5. For non-traffic applications, after the system is covered, the site should be seeded or sodded to prevent erosion.

6. For traffic applications, place final ground cover material.

WARRANTY

Massachusetts Limited Septic Warranty for Infiltrator Chambers

(a) Infiltrator warrants that each chamber, endcap, end plate, and other accessory manufactured by Infiltrator (collectively, the "Units"), when installed and operated in a leachfield of an onsite septic system of a single family residence in accordance with Infiltrator's instructions, for a period of five (5) years from the date of installation (i) shall be free from defective materials and workmanship; and (ii) shall perform in such a manner to absorb effluent within the design flow rate for the septic system containing the Units, so that there will be no sewage backup into the dwelling or structure which uses the septic system, or visible pooling of effluent around the system. The presence of such sewage backup or such visible pooling shall constitute a "Failure" of the system. This Limited Warranty covers new, permitted leachfield installations only, and does not cover extensions or additions to existing leachfields. This Limited Warranty extends only to the original purchasing contractor. For this Limited Warranty to apply, the Units must be installed in accordance with all necessary permits and in accordance with all site conditions required by state and local codes for the installation of gravel and pipe systems, and must be sized according to Infiltrator specifications and state, county and local requirements.

In order to exercise these Limited Warranty rights, the warranty holder must notify Infiltrator in writing at its corporate headquarters in Old Saybrook, Connecticut (address below) within fifteen (15) days of any alleged defect or Failure. The notice shall be accompanied by (i) a copy of the appropriate permit for the septic system; and (ii) proof to Infiltrator's satisfaction that the septic tank has been pumped at least once every three (3) years since installation. Upon notification of a possible breach of warranty, Infiltrator may undertake an investigation of the circumstances of the possible breach. In its discretion, Infiltrator may perform tests to determine the cause of any breach and may hire a soil scientist or professional engineer or use Infiltrator personnel to evaluate soil conditions and otherwise assist in the investigation.

In the event that Infiltrator determines that there has been a breach of this Limited Warranty due to a Failure, Infiltrator will, at its option, either: provide Units as it deems necessary to extend the size of the leachfield and a fee of $30.00 per Unit toward the cost of installation; or provide an equivalent, state-approved solution to cure the breach. Infiltrator will not be responsible for pumps or any other necessary mechanical devices needed to extend or repair the leachfield following a Failure, nor shall Infiltrator be liable for the addition of pump systems or underground water diversion systems, or repair or replacement of any landscape or irrigation systems, following a Failure. In the event of any other breach of this Limited Warranty, Infiltrator will, at its option, either: provide replacement Units for Units determined by Infiltrator to be defective and a fee of $30.00 per Unit toward the cost of installation; or provide an equivalent state-approved solution to cure the breach. Infiltrator's liability under this Standard Limited Warranty specifically excludes any other cost of removal and/or installation of the Units.

(b) THIS LIMITED WARRANTY AND THE REMEDIES IN SUBPARAGRAPH (a) ARE EXCLUSIVE. THERE ARE NO OTHER WARRANTIES TO THE ORIGINAL PURCHASING CONTRACTOR WITH RESPECT TO THE UNITS, INCLUDING NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

(c) This Limited Warranty shall be void if any part of the chamber system (chamber, endcap, end plate, or other accessory) is manufactured by anyone other than Infiltrator. The Limited Warranty does not extend to incidental, consequential, special or indirect damages. Infiltrator shall not be liable for penalties or liquidated damages, including loss of production and profits, labor and materials, overhead costs, or other losses or expenses incurred by the warranty holder or any third party. Specifically excluded from Limited Warranty coverage are damage to the Units due to Acts of God; ordinary wear and tear, alteration, accident, misuse, abuse or neglect of the Units; the Units being subjected to vehicle traffic or other conditions which are not permitted by the installation instructions; failure to maintain the minimum ground cover set forth in the installation instructions; the placement of improper materials into the system containing the Units; failure of the Units or the septic system due to improper siting or improper sizing, excessive water usage, improper grease disposal, or improper operation; or any other event not caused by Infiltrator. This Limited Warranty shall be void if the warranty holder fails to comply with all of the terms set forth in this Limited Warranty, including the information required by subparagraph (a). Furthermore, in no event shall Infiltrator be responsible for any loss or damage to the warranty holder, the Units, or any third party resulting from installation (except as expressly set forth in subparagraph (a) or shipment, or from product liability claims of the warranty holder or any third party. For this Limited Warranty to apply, the Units must be installed in accordance with all site conditions required by state and local codes, all other applicable laws, and Infiltrator's written instructions.

(d) No representative of Infiltrator has the authority to change this Limited Warranty in any manner whatsoever, or to extend this Limited Warranty. No warranty applies to any party other than the original purchasing contractor.

* * * * * * *

The above represents the Standard Limited Warranty offered by Infiltrator. Any purchaser of Units should contact Infiltrator's corporate headquarters at 6 Business Park Road, P.O. Box 768, Old Saybrook, Connecticut 06475, prior to such purchase, to obtain a copy of the applicable warranty, and should carefully read that warranty and the limitations on the warranty prior to the purchase of Units.

Infiltrator™
Water Technologies
Part of ADS

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www.infiltratorwater.com

U.S. Patents: 4,759,661; 5,017,041; 5,156,488; 5,336,017; 5,401,116; 5,401,459; 5,511,903; 5,716,163; 5,588,778; 5,839,844 Canadian Patents: 1,329,959; 2,004,564 Other patents pending. Infiltrator, Equalizer, Quick4, and SideWinder are registered trademarks of Infiltrator Systems Inc. Infiltrator is a registered trademark in France. Infiltrator Systems Inc. is a registered trademark in Mexico. Contour, MicroLeaching, PolyTuff, ChamberSpacer, MultiPort, PosiLock, QuickCut, QuickPlay, SnapLock and StraightLock are trademarks of Infiltrator Systems Inc. PolyLok is a trademark of PolyLok, Inc. TUF-TITE is a registered trademark of TUF-TITE, INC. Ultra-Rib is a trademark of IPEX Inc.

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Contact Infiltrator Systems' Technical Services Department for assistance at 1-800-221-4436