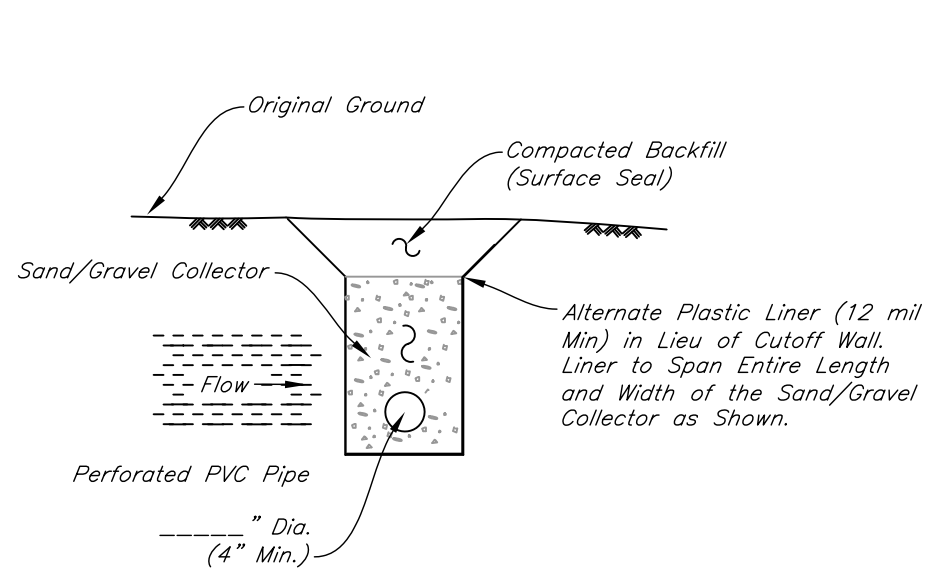


TYPICAL COLLECTOR PLAN VIEW
Not to Scale

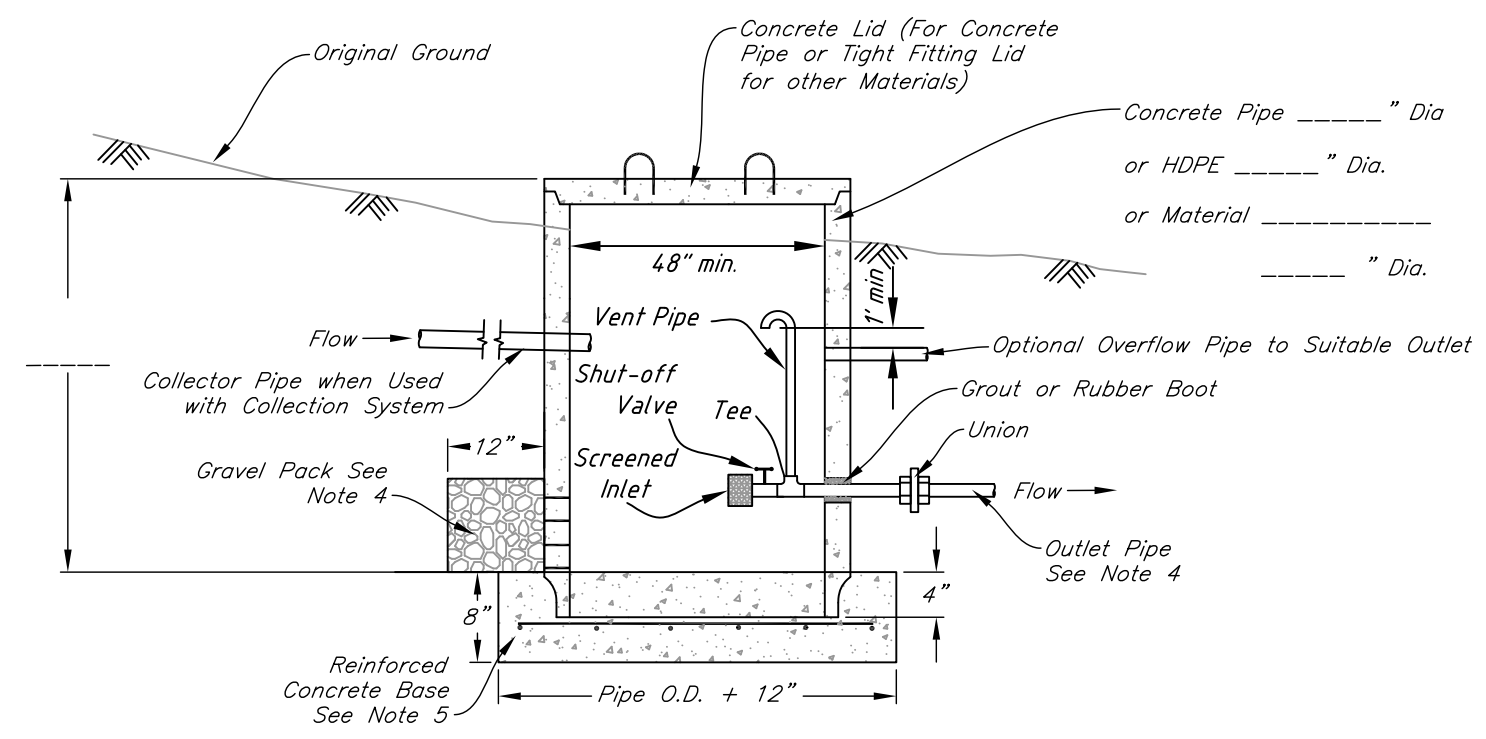
Estimated Quantities & Materials				
Item	Material/ Pipe Type	Diameter Inches	Unit	Quantity
Spring Box			Ft.	
Concrete		---	Cu Yd	
Collection Pipe			Ft.	
Supply Pipe			Ft.	
Overflow Pipe			Ft.	
Outlet Pipe			Ft.	
Sand/Gravel Collector Fill		---	Cu Yd	
Cutoff Wall		---	S.Ft./Cu Yd	

CONSTRUCTION NOTES

1. Alternate Collector Layout ____ to be used in lieu of Typical Collector shown. (See Sheet 2)
2. Cutoff wall may be constructed of concrete, clay, masonry, plastic sheeting, or sheet pile. Material must be able to provide adequate anti-seep control to supply the collection system but shallow enough to allow passage of subsurface flows to any downstream wetlands.
3. A shut-off valve should be installed along the outlet. For collection pipe installed without a spring box, the shut-off valve should be installed at the intersection of the collection and solid outlet pipe.
4. Perforate box and gravel pack with 12" of gravel if water enters through the sides. Outlet pipes exiting a spring box shall be a minimum of 3" below the collection pipe.
5. Concrete base reinforced with #4 Bars @ 12" C to C in both directions or 6" min. thick filter gravel if water enters through the bottom.
6. Fill for the sand/gravel collector to meet requirements of ASTM C33 for Fine Aggregate unless otherwise specified.
7. Specific requirements for sand/gravel collector fill:



TYPICAL CROSS SECTION SAND/GRAVEL COLLECTOR SECTION
Not to Scale

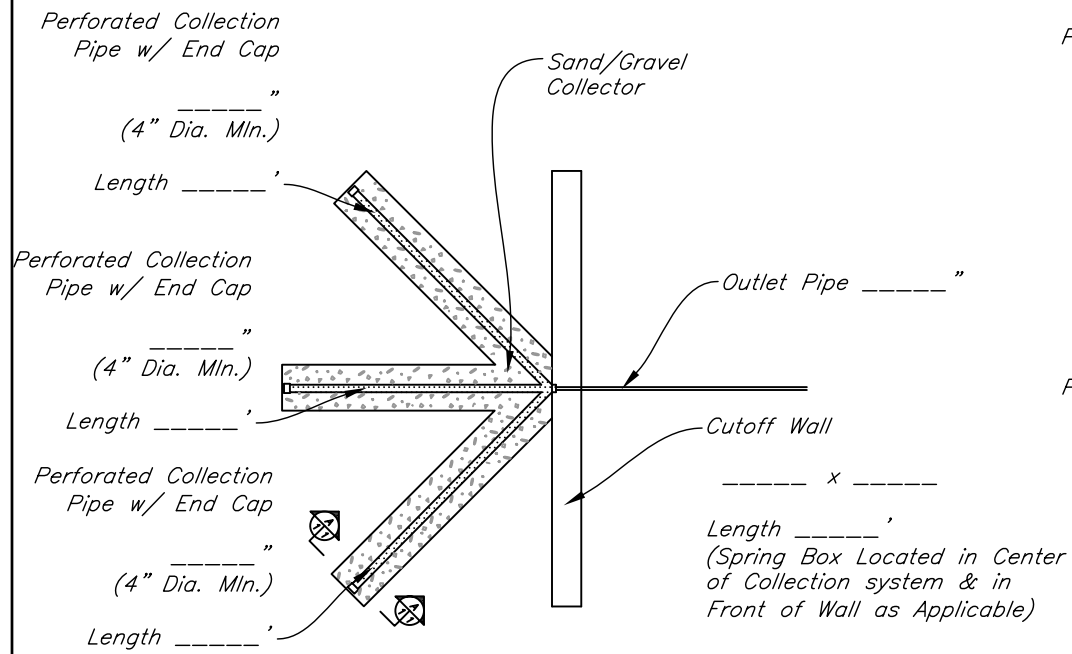


TYPICAL SPRING BOX COLLECTOR
Not to Scale

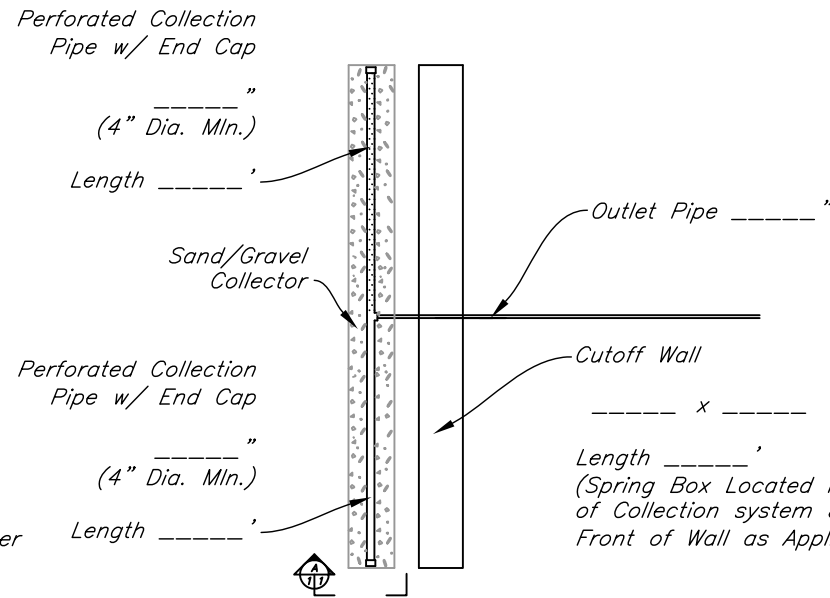
Date _____
 Designed _____
 Drawn Cassie Ahmed 03-22-2024
 Checked _____
 Approved _____

SPRING DEVELOPMENT DETAILS
 OWNER: _____
 COUNTY: _____

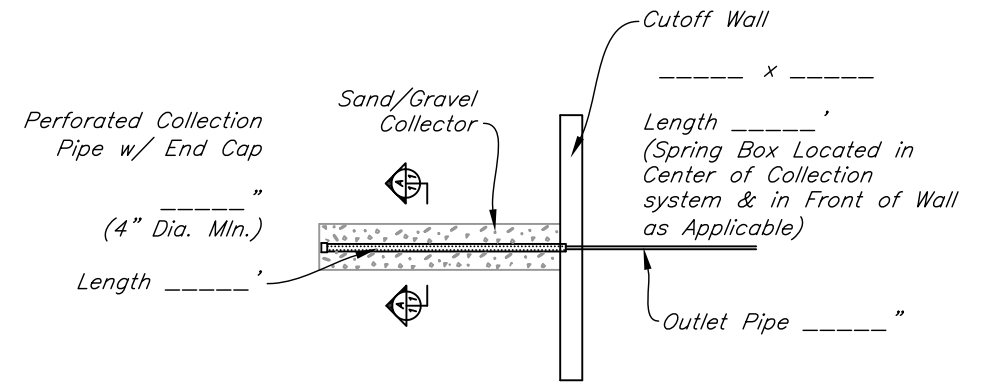
Alternative Collector to be Used: _____



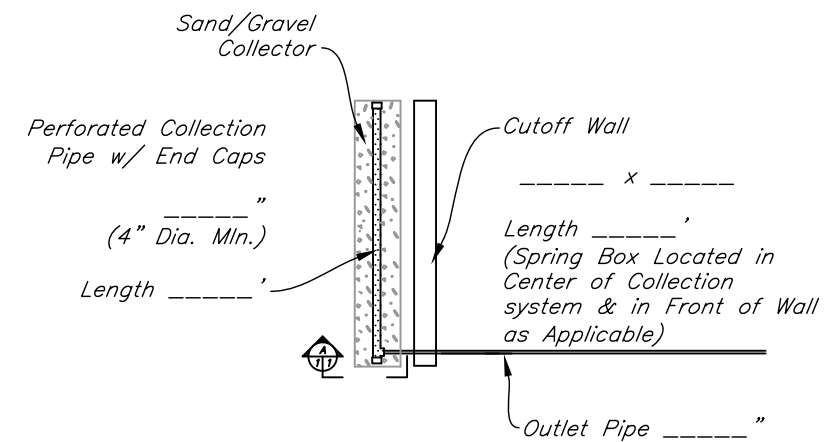
Alternative Collector Layout 1
Not to Scale



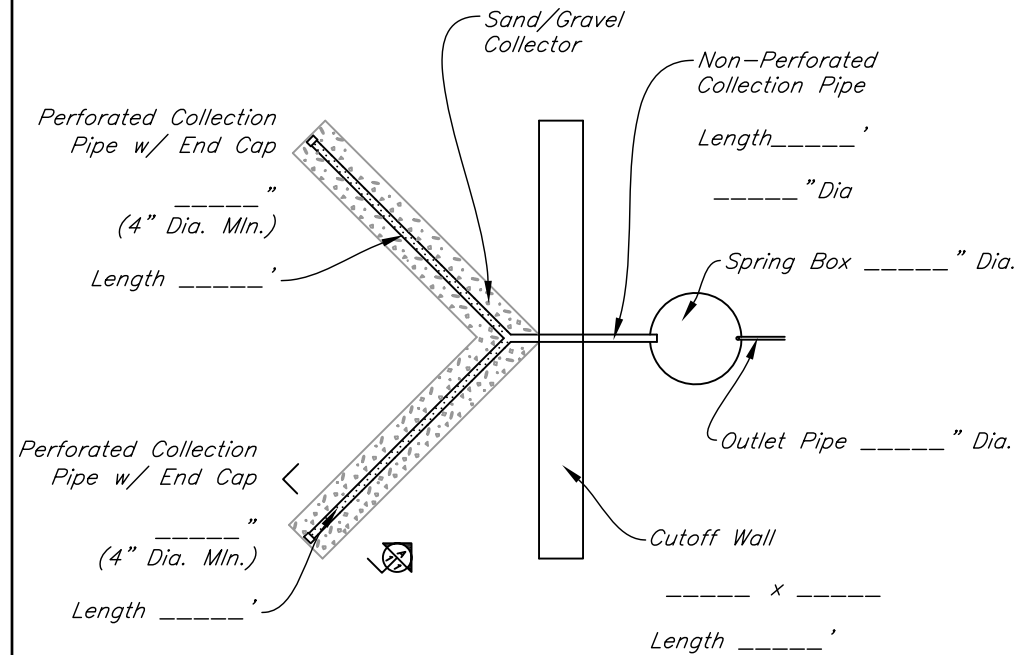
Alternative Collector Layout 3
Not to Scale



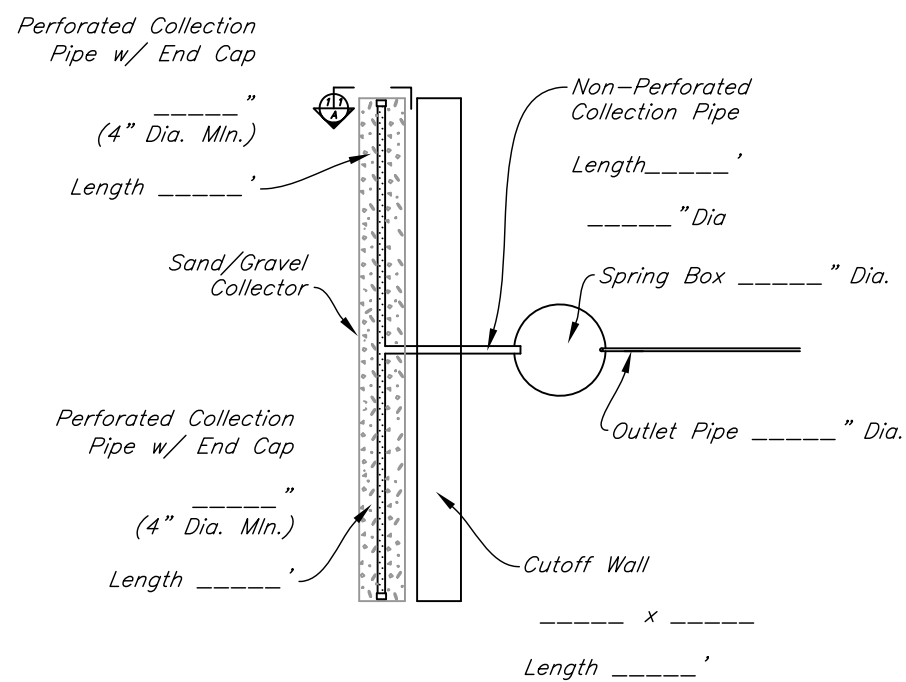
Alternative Collector Layout 5
Not to Scale



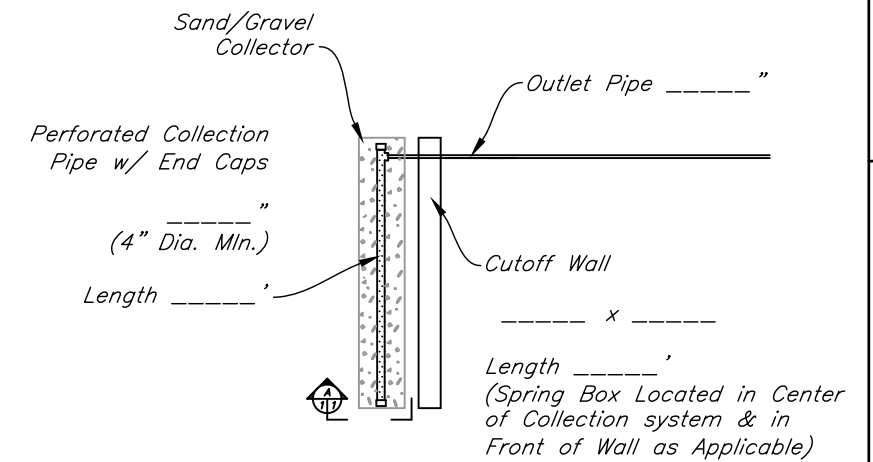
Alternative Collector Layout 6
Not to Scale



Alternative Collector Layout 2
Not to Scale



Alternative Collector Layout 4
Not to Scale



Alternative Collector Layout 7
Not to Scale

Date	03-22-2024
Designed	Cassie Ahmed
Drawn	
Checked	
Approved	

SPRING DEVELOPMENT ALTERNATE LAYOUTS

OWNER: _____

COUNTY: _____



File Name
ND-DWG-151B

Date
03-22-2024

Sheet of