

STANDARD OPERATION MANUAL

for

Detention Tanks/Vaults

Implemented: October 2018



Figure 1: Installation of a detention vault

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1. Introduction and Purpose

The purpose of this manual is to:

- define a detention tank/vault
- help identify a detention tank/vault
- describe the operation of a detention tank/vault

2. Definitions

Drainage Facility Identification (DFI) – a unique number assigned to ODOT stormwater treatment and storage facilities. The DFI is used to link the stormwater facility to an O&M manual and asset management systems. The lead of ODOT's Geo-Environmental Hydraulic Engineering Program assigns DFI numbers.

Detention – The storage and gradual release or reduction of stormwater runoff by way of a control structure or other release mechanism.

Detention Tanks (Pipes) – Detention tanks, also referred to as pipes, are underground storage facilities that are constructed from large diameter pipe. Tanks are usually connected to a standard manhole at the inlet and a flow control manhole at the outlet. These facilities store peak runoff flows and release the volume at a slower design rate.

Manifold Detention System – A manifold detention system is a series of parallel pipes connected at both ends by perpendicular pipes (manifold) to form one system. These systems store peak runoff flows and release the volume at a slower design rate. These facilities are similar to detention tanks, but they operate and are maintained differently.

Detention Vaults – Detention vaults are enclosed underground storage facilities. They are typically constructed from reinforced concrete and are typically rectangular shaped. These facilities store peak runoff flows and release the volume at a slower design rate.

Inlet – The upstream point/location where stormwater runoff enters or drains into a detention tank/vault. Typically, a water quality (WQ) facility upstream of the tank/vault inlet provides primary treatment.

Dead Storage – Area below the outlet elevation to allow for sediment accumulation between maintenance cycles. This area provides the same function as a sump.

Outlet – The downstream point/location where stormwater runoff drains from the tank/vault to an outfall.

Outfall – The point/location where stormwater runoff exits the tank outlet pipe and drains into a waterbody or storm drain system.

3. Overview

ODOT utilizes detention facilities to reduce peak discharge and detain stormwater runoff for a short period of time. These facilities are designed to gradually release stormwater via a control structure or release mechanism and completely drain after a design storm event (all detention volume should be drained within 72 hours). These detention facilities are designed to reduce peak flows that may cause flooding. They can be located along highway shoulders, parking lots, and hardscape surfaces. Detention tanks and vaults can be used in conjunction with other detention storage facilities, such as ponds, to provide initial or supplemental storage.

Detention tanks, manifold detention systems, and vaults are typically located in developed areas where space is limited or where an open basin is not adequate. They can be found along a highway shoulder (Figure 5). Access manholes may sometimes be found on a highway's pavement.

The standard operational plans for a detention tank, manifold detention system, and a detention vault are provided in Appendix A. The plans illustrate and describe the typical footprint, configuration, and components associated with these facilities.

Note: Man entry into these facilities is considered a “Confined Space” entry. Proper training and safety equipment is needed.

What is a detention tank?

A detention tank is an underground large-diameter pipe with a flat or slightly sloping bottom. A detention tank receives high flows of stormwater runoff from an upstream WQ facility. A detention tank stores runoff in the main tank and gradually releases it through flow control structures connected to the tank. Detention facilities help reduce flooding in impermeable areas during storm events. The detained stormwater should drain in a manner to ensure that the entire storage volume is available for subsequent storms.

What is a manifold detention system?

A manifold detention system provides the same function as a detention tank but operates and is maintained differently. A manifold detention system is a series of large-diameter pipes placed parallel to each other and connected at both ends by perpendicular pipes (manifold) to form one system. Storage pipes can be fully or partially perforated for infiltration or groundwater recharge applications.

What is a detention vault?

Similar to detention tanks and manifold detention systems, a detention vault provides temporary storage for peak runoff flows to help reduce flooding in impermeable areas. Like tanks, vaults have a flat or slightly sloping bottom and have flow control structures at the outlet. Different from a pipe structure, detention vaults are typically rectangular shaped and constructed with reinforced concrete. Detention vaults also have additional facility components such as partitions built directly into the structure.

How to identify water quality facilities in the field

ODOT's Geo-Environmental Section maintains a stormwater facility inventory. Facility location is listed by highway and milepost. Water quality facilities are indicated in the field by type S2 and/or type S3 markers (Figure 2, Figure 3).

- Type S2 marker: white paddle with a blue stripe and the assigned DFI number
- Type S3 marker: access cover with DFI number



Figure 2: Type S2 marker detail

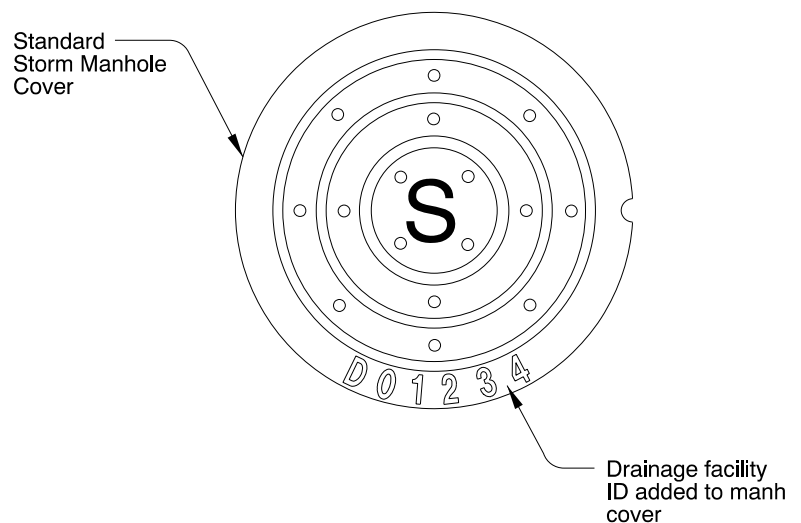


Figure 3: Type S3 marker detail

Water quality facility field markers are included on standard and site specific operational plan drawings (Figure 4). Reference the field marker figures in Appendix B for additional field marker details.

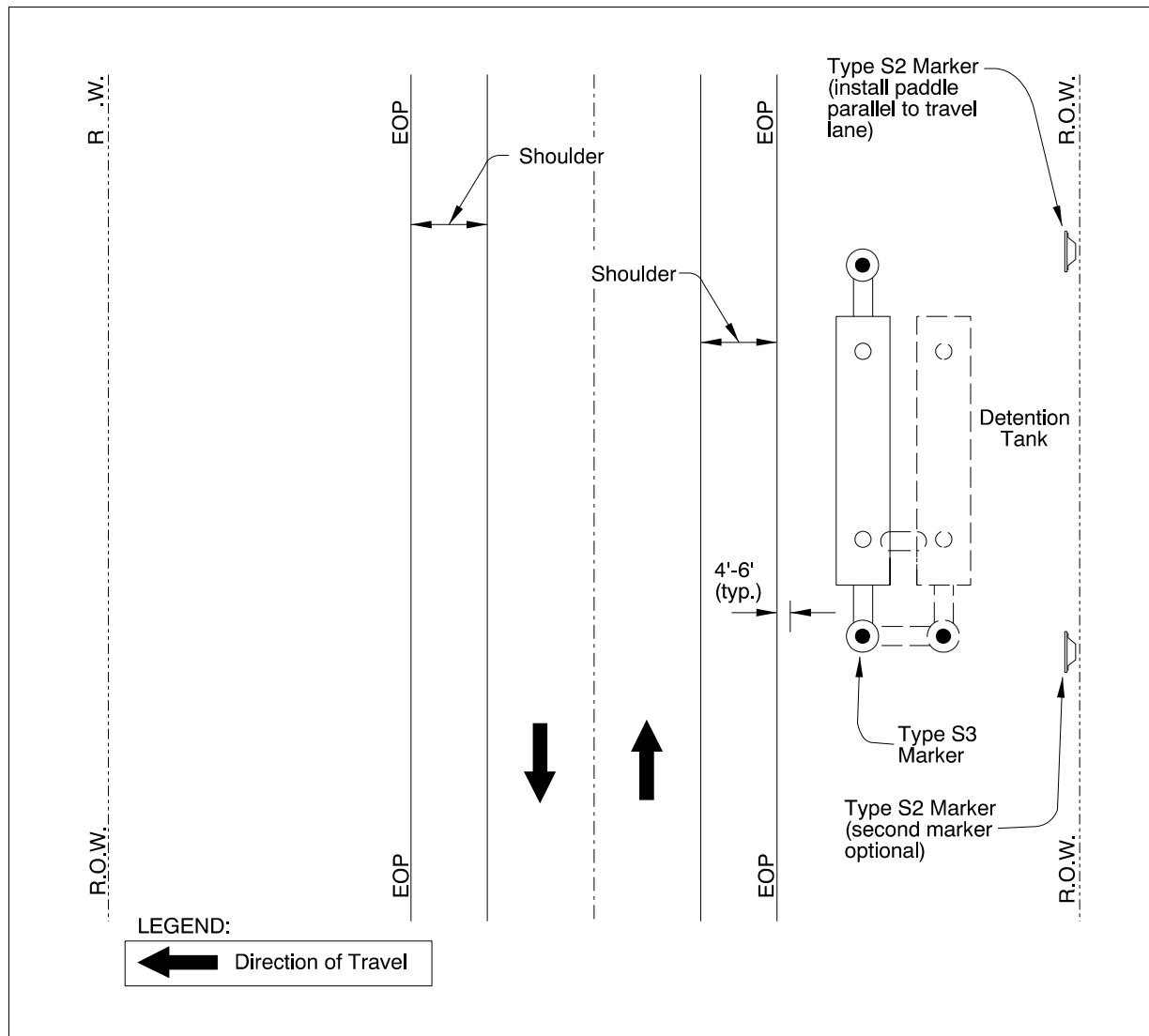


Figure 4: Location of the facility field markers

How to locate water quality facilities using TransGIS

TransGIS may be used to locate WQ facilities. TransGIS is a web-based, interactive mapping service available to all internet users. The facility location (highway, milepost, district, region), type of facility, DFI number, and an electronic version of the O&M manual can be viewed using TransGIS. Facility mile points are not generated from TransGIS and may not match exactly with the mile markers within TransGIS.

Link to TransGIS: <https://gis.odot.state.or.us/transgis/>

How to view O&M Manuals in TransGIS

- Select “Drainage” from the Layer Catalog menu on the left
- Select “Stormwater Management Facilities”
- Click “Apply” on the bottom left of the screen
- Select the “Identify Features”  button on the toolbar above the map
- Click on any facility  button on the map to identify features
- A dialog box appears with facility information and links to the O&M manual and maintenance tables

How does a detention tank operate?

Detention tanks are used to reduce peak discharge flow rates and detain stormwater runoff for a short period of time. Stormwater runoff from paved areas is collected at a WQ facility upstream of the detention tank. The WQ facility provides pretreatment for the detention facility. This helps extend the detention facilities' lifespan by removing large debris and reducing sediment buildup.

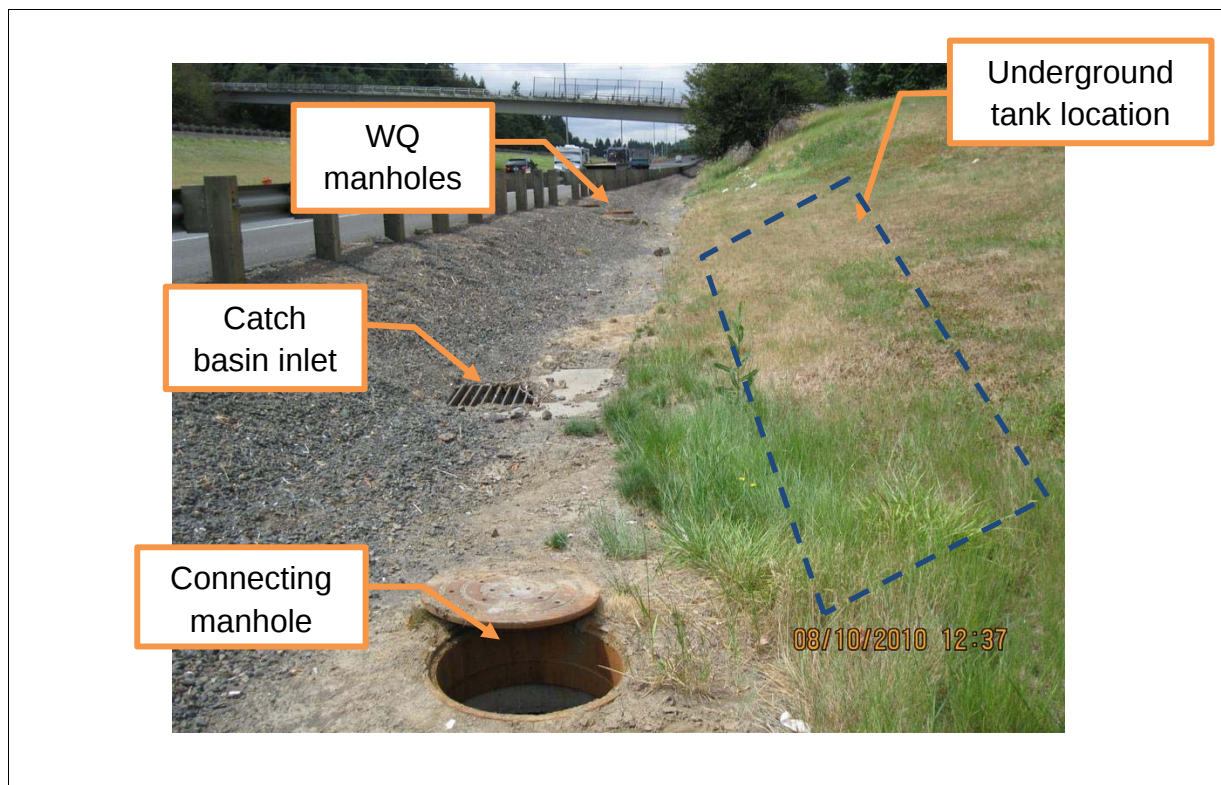


Figure 5: Detention tank location

Sediments not captured by the pre-treatment facility are collected as they settle out of the water in a sump below the inlet or in the dead storage space at the bottom of the detention tank. If additional stormwater storage is needed, an additional tank will be placed parallel to the main tank. The parallel tanks are connected to one another with large diameter pipe (usually 36 inches or larger) (Figure 13). The treated stormwater is then slowly released through a flow control structure (usually flow control manholes) located just downstream of the tanks (Figure 7, Figure 8).

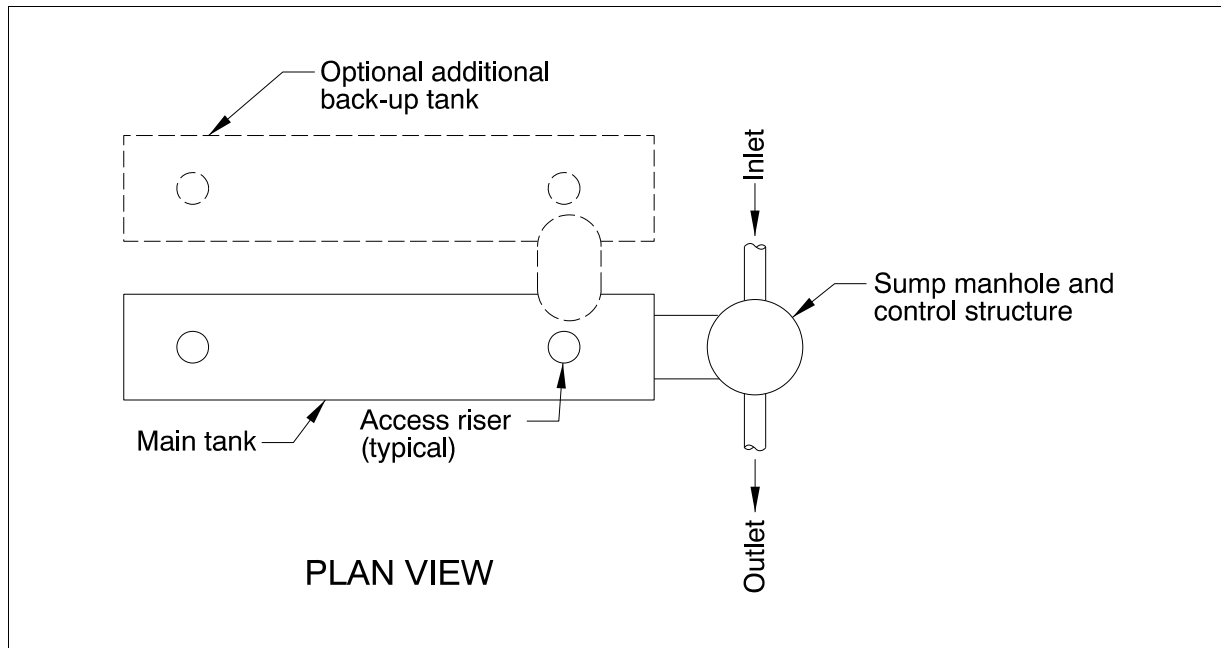


Figure 6: Additional back-up tank

The flow control manholes include a primary outlet and an auxiliary outlet such as an overflow riser pipe (Figure 8). The primary outlet (lower orifice) includes a flow restrictor to slow the conveyance of water. The auxiliary outlet allows overflow to bypass the flow restrictor when the design flow is exceeded. Outflows are typically discharged into open channels or other approved storage and conveyance features.

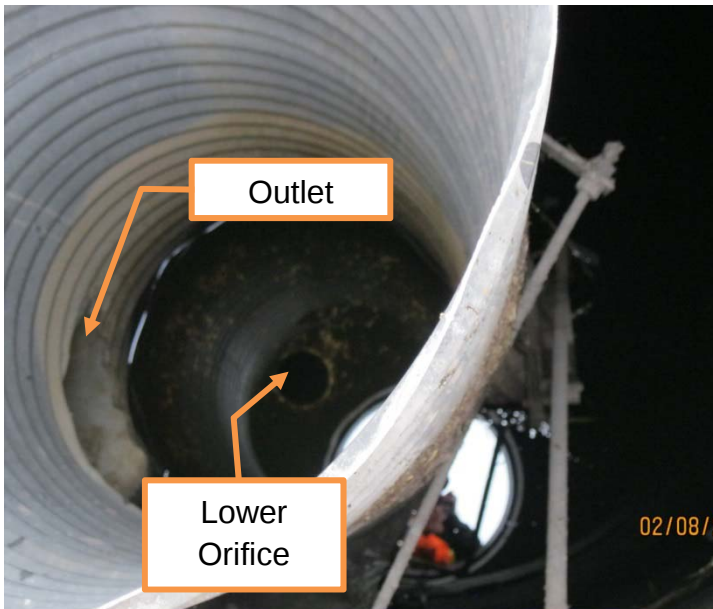


Figure 7: Interior view of a flow control manhole showing the lower orifice

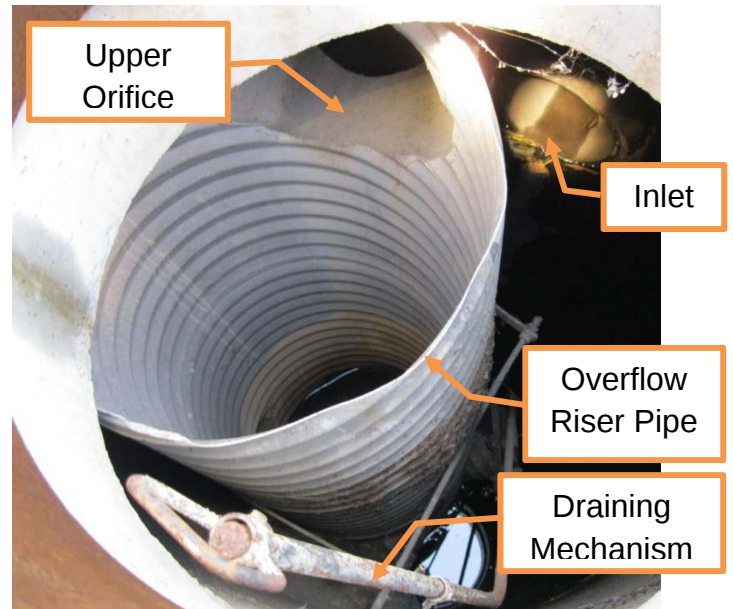


Figure 8: Interior view of a flow control manhole showing the upper orifice

Detention tanks will include access openings along the length of the pipe at a maximum of 50-foot intervals from any location within the pipe (Figure 9, Figure 10). These access openings allow people and equipment to reach all areas of the tank for inspection, maintenance, and repair.



Figure 9: Top view of access manhole



Figure 10: Interior view of access vault

How does a manifold detention system operate?

A manifold detention system is usually a proprietary structure that is manufactured by private companies (Figure 11, Figure 12). Manifold detention systems are different in that they do not have a dead storage area within the detention pipes. Rather, sediments are collected upstream of the manifold system in a WQ facility. After primary treatment in the WQ facility, the stormwater enters a manifold pipe via the inlet pipe. Once there, the stormwater disperses among the number of parallel pipes in the manifold system (Figure 13). Stormwater is detained in these pipes for a short period of time after a large storm event. Some manifold systems can incorporate fully or partially perforated pipes for infiltration applications. The stormwater exits the manifold system via a flow control manhole at the outlet. The stormwater may then outfall into a waterbody, storm drain system, or ditch.



Figure 11: Contech CMP Detention and Infiltration System



Figure 12: Contech Duromaxx Detention System

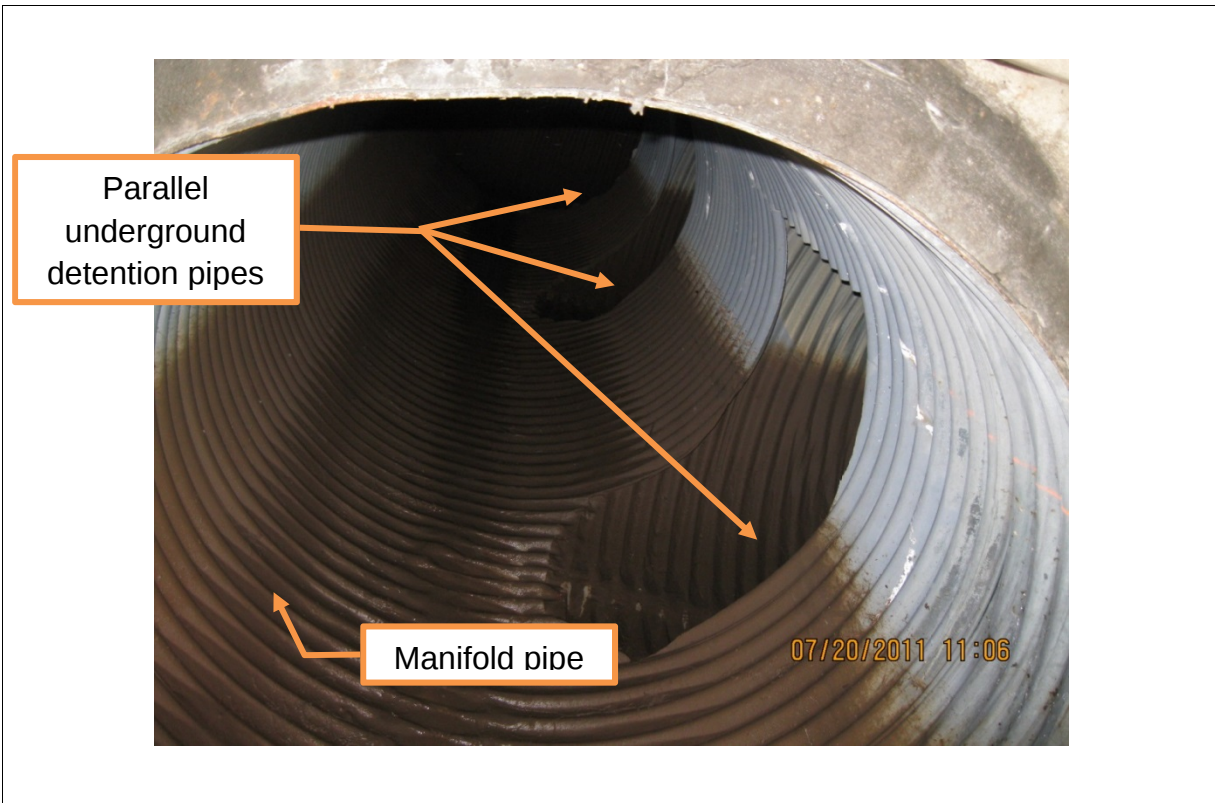


Figure 13: Corrugated manifold detention tank

How does a detention vault operate?

Detention vaults also provide stormwater storage for a short period of time and receive flows from upstream WQ facilities (Figure 14). In a detention vault, the stormwater from the WQ facility enters the dead storage area where sediment is collected. This area is separated from the remainder of the vault with a baffle to restrain the flow of loose material. A secondary sediment collection sump is provided under the outlet structure to collect additional sediment before the stormwater exits through the outlet. The flow control structures used for vaults are similar to those used in detention tanks with the exception that they are typically found within the vault itself.

Additional detention vault components may include ventilation pipes and access vaults. Ventilation pipes may be installed in the four corners of the vault to allow ventilation for maintenance personnel.



Figure 14: Installation of a detention vault

4. Facility Components

The following summary outlines the common underground detention facility components that are used to help with:

- removal of sediments and debris, and
- detention and conveyance

An ID number is assigned to each facility component and is used to identify and define these components.

The facility components are organized into the following sub-categories:

- (1) Manholes
- (2) Facility inlet
- (3) Facility structures
- (4) Facility outlet
- (5) Outfall Components

Table 1: Manholes

Facility Component	ID #	Description
Pre-Treatment Manhole	T1	A manhole with a sump is placed upstream of the tank/vault. The purpose of the manhole sump is to allow for coarse sediment and debris to be captured in the sump rather than draining into the tank/vault. There are several proprietary Water Quality manhole options if further treatment is needed. Refer to the ODOT Qualified Products List (QPL) specification No. 01010.03
Water Quality Manholes	T2	Several types of water quality manholes that meet the requirements for standalone water quality structures. These ODOT approved proprietary facilities are: Use these ID#'s for water quality manholes: • (P2-A) "Continuous Deflective Separation" (CDS) by CONTECH • (P2-B) "Stormceptor " by Rinker Materials • (P2-C) "Downstream Defender" by Hydro International
Flow Splitter Manhole	T3	A manhole installed before the tank/vault inlet with built-in components to route water in multiple directions. The splitter routes high flows into the detention tank/vault but, allows low flows to bypass (drain past) through a storm drainage system that leads to a water quality facility downstream. Flow splitters may consist of orifice or weir type splitters.
Flow Control Manhole	T4	Flow control manholes regulate the flow rate of water being released. The flow control manholes include a primary outlet and an auxiliary outlet such as an overflow riser pipe.
Standard Manhole	T5	A concrete structure provided to access a storm drainage system for inspection and maintenance. A standard manhole is circular, 4 feet in diameter, and has a cast iron lid/cover. Typically used when two or more storm drain pipes come together, or with changes in pipe sizes and/or horizontal alignments. Standard manholes may contain a sump where sediment from stormwater runoff can settle out.
Sump	T6	Sumps are typically located below the inlet and outlet of a facility. It is an area that collects sediment and debris as they settle out of the stormwater runoff.

Table 2: Facility Inlet

Facility Component	ID #	Description
Inlet Pipe	T7	The inlet pipe connects the inlet vault to an upstream pretreatment system or the upstream stormwater piping system.

Table 3: Facility Structures

Facility Component	ID #	Description
Main Tank/Vault	T8	A detention tank/vault is an underground container that stores a design volume of stormwater. A tank is a large diameter pipe made of concrete or corrugated high density polyethylene plastic. A vault is rectangular in shape and made out of concrete. The detention tank/vault bottom is flat or slightly sloping in the direction of flow. The tank/vault bottom will be at least 6 inches below the outlet to provide dead storage for sediment.
Additional Back-Up Tank	T9	An additional tank with similar dimensions to the main tank may be included and placed parallel to the main tank if additional detention storage is needed. The additional tank will be connected to the main pipe with a connecting pipe.
Manifold Pipe	T10	A manifold pipe is used for manifold detention systems. It is a large diameter pipe placed perpendicular to the main detention pipes of the manifold system. This pipe is connected to the detention pipes with small sections of smaller diameter pipe. Typically, the facility will have two manifold pipes: one at the inlet and another at the outlet.
Connecting Pipe	T11	The connecting pipe will have a minimum diameter of 3 inches and a maximum length of 2 feet.
Access Opening	T12	Access openings are standard manholes or catch basins positioned at maximum of 50-foot intervals along the length of the tank/vault. The lids to the access openings most often have locking components for safety purposes. Access openings provide access into the tank/vault for maintenance. Access openings may also act as ventilation for the system.

Table 4: Facility Outlet

Facility Component	ID #	Description
Outlet Flow Control	T13	The primary outlet controls the release flow rate and can consist of weirs or orifice openings. The secondary outlet serves as a backup to the primary outlet when the latter is not working properly or during events of high flow. The outlet controls can consist of weirs or orifice openings. The auxiliary outlet allows for additional flow release during larger storm events or if the primary and secondary outlets are not functioning properly.
Drainage Mechanism	T14	A drainage mechanism controls the flow rate of the stormwater leaving the detention facility via the flow control manhole.
Outlet Pipe	T15	The outlet pipe connects the outlet vault or downstream facility manhole to the downstream stormwater piping system, waterbody, or ditch.

Table 5: Outfall Components

Facility Component	ID #	Description
Outfall	T16	Stormwater draining from a tank/vault outlet pipe can drain directly into a waterbody. The waterbody can be a creek (C), lake (L), or ocean (O).
Ditch	T17	Stormwater draining from a tank/vault outlet pipe can drain directly into a nearby ditch. The nearby ditch could be an existing ODOT ditch or an adjacent property ditch as long as ODOT's runoff has always drained into the neighboring ditch.
Storm Drain System	T18	Stormwater draining from a tank/vault outlet pipe can drain directly into an ODOT storm drain system and in some cases into a local agency storm drain system.
Riprap Pad	T19	The storm drain outlet pipe (T15) would end and outfall onto the side bank of a creek or stream. Riprap rock is placed all around the pipe end or channel end to prevent erosion.

5. Operational Plan

Three standard operational plans for detention tanks and vaults are provided in Appendix A. These are the most common installations.

1. Operational Plan A: Illustrates a detention tank
2. Operational Plan B: Illustrates a detention vault
3. Operational Plan C: Illustrates a manifold detention system

The purpose of an operational plan is to illustrate and provide the following general information:

- typical footprint configuration of the detention facilities
- standard detention tank/vault components used to collect sediment
- general field marking types and where they are placed, and
- how stormwater drains into, along, and out of a detention tank/vault

Notes are included on each sheet to help explain how a detention tank/vault operates.

A Appendix A – Standard Operational Plans

This appendix contains the operational plans for the detention facilities. The operational plans show the location of the facility components.

Figure A-1: Operational Plan A – Detention Tank (Sheet 1)A-3

Figure A-2: Operational Plan A – Detention Tank (Sheet 2)A-4

Figure A-3: Operational Plan B – Detention VaultA-5

Figure A-4: Operational Plan C – Manifold Detention System (Sheet 1)A-7

Figure A-5: Operational Plan C – Manifold Detention System (Sheet 2)A-8

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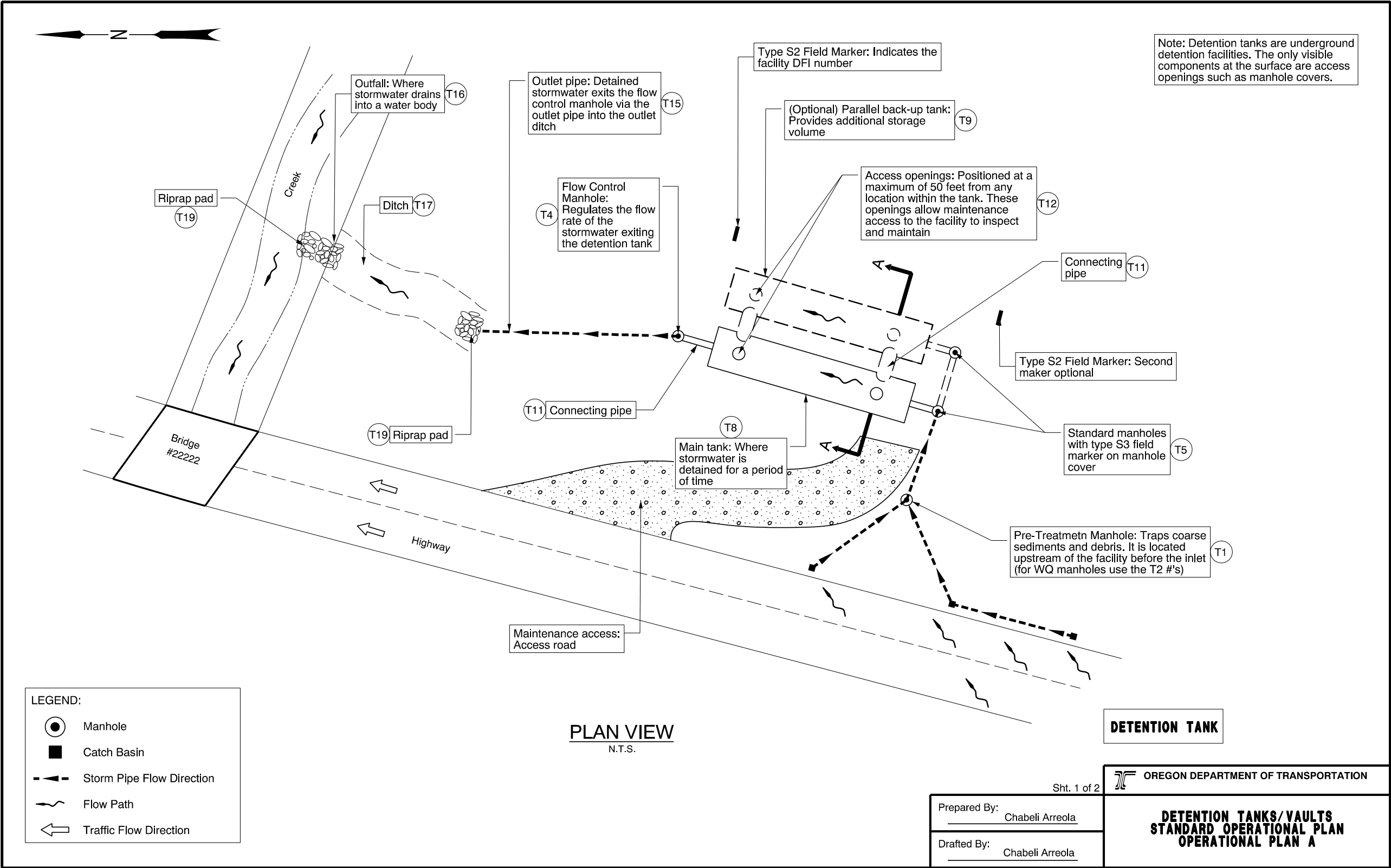


Figure A-1: Operational Plan A – Detention Tank (Sheet 1)

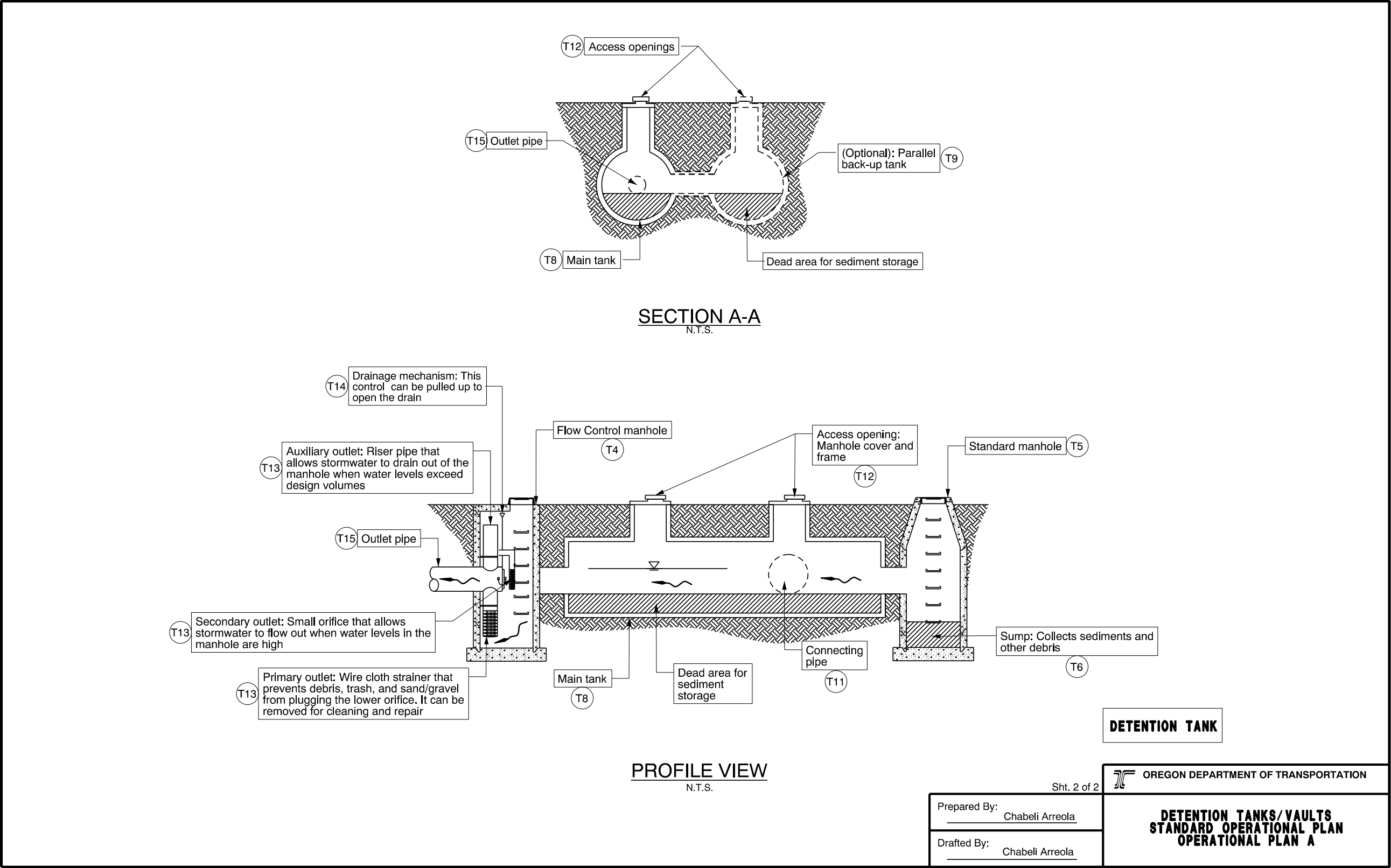


Figure A-2: Operational Plan A – Detention Tank (Sheet 2)

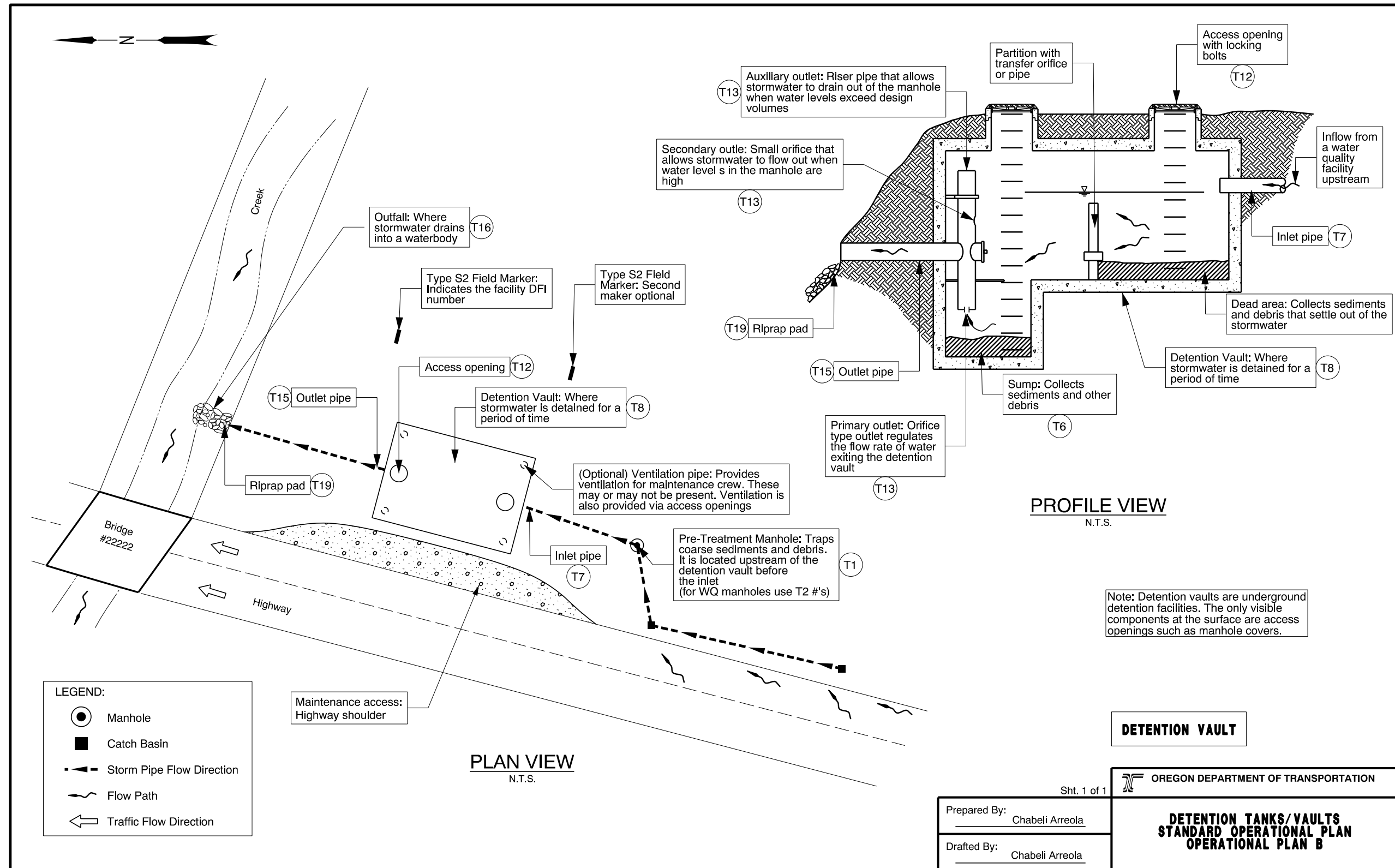


Figure A-3: Operational Plan B – Detention Vault

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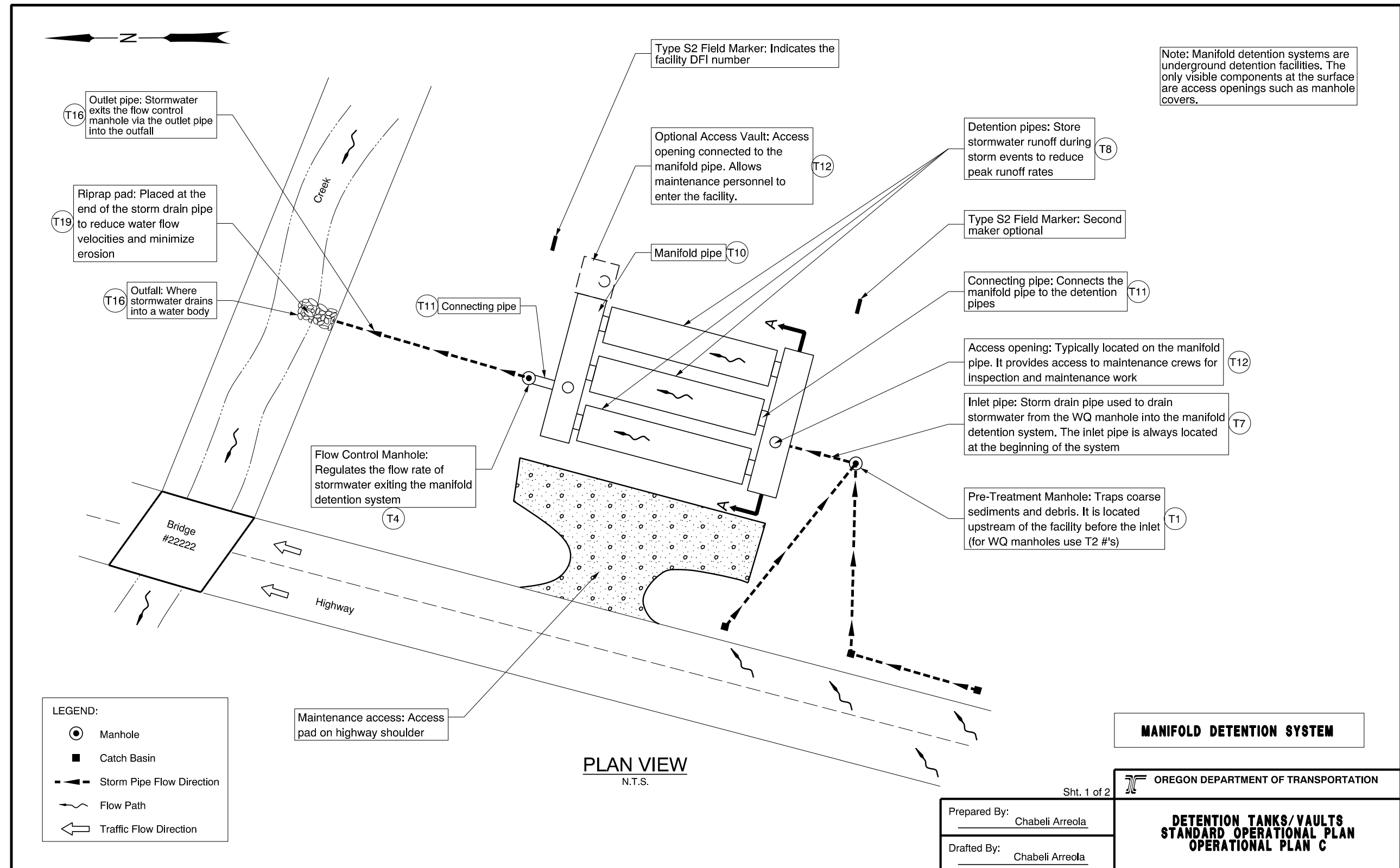


Figure A-4: Operational Plan C – Manifold Detention System (Sheet 1)

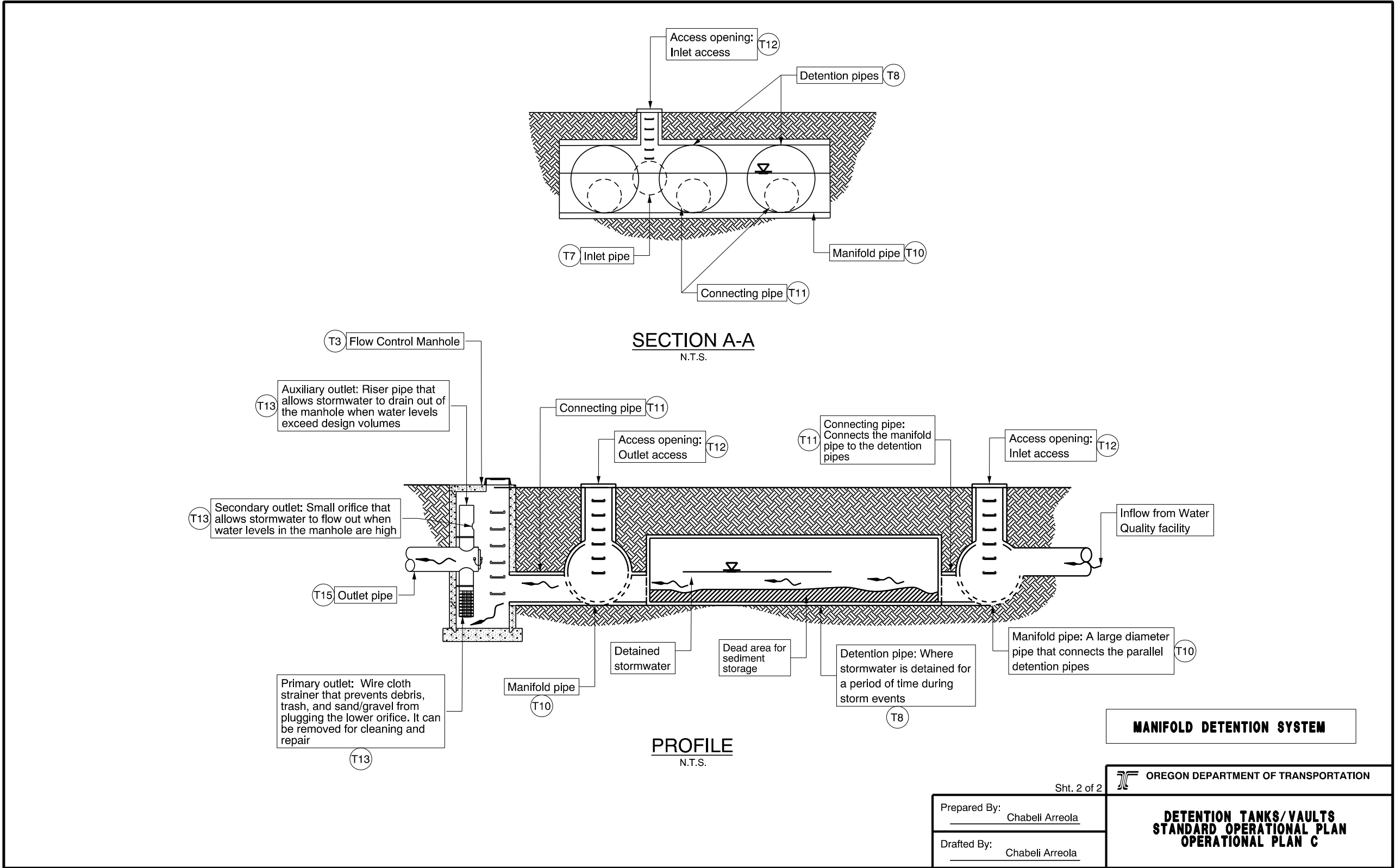


Figure A-5: Operational Plan C – Manifold Detention System (Sheet 2)

B Appendix B – Facility Component Details

This appendix contains a description of the facility components.

Figure B-1: Pre-treatment Manhole (T1) – Pollution Control Manhole..... B-2

Figure B-2: Water Quality Manhole (T2-A) – CDS..... B-3

Figure B-3: Water Quality Manhole (T2-B) – Stormceptor B-4

Figure B-4: Water Quality Manhole (T2-C) – Downstream Defender B-5

Figure B-5: Flow splitter manhole (T3) – Weir type flow splitter..... B-6

Figure B-6: Flow splitter manhole (T3) – Orifice type flow splitter..... B-7

Figure B-7: Flow Control Manhole (T4)..... B-8

Figure B-8: Standard Manhole (T5) B-9

Figure B-9: Sump (T6) B-10

Figure B-10: Access Openings (T12) B-11

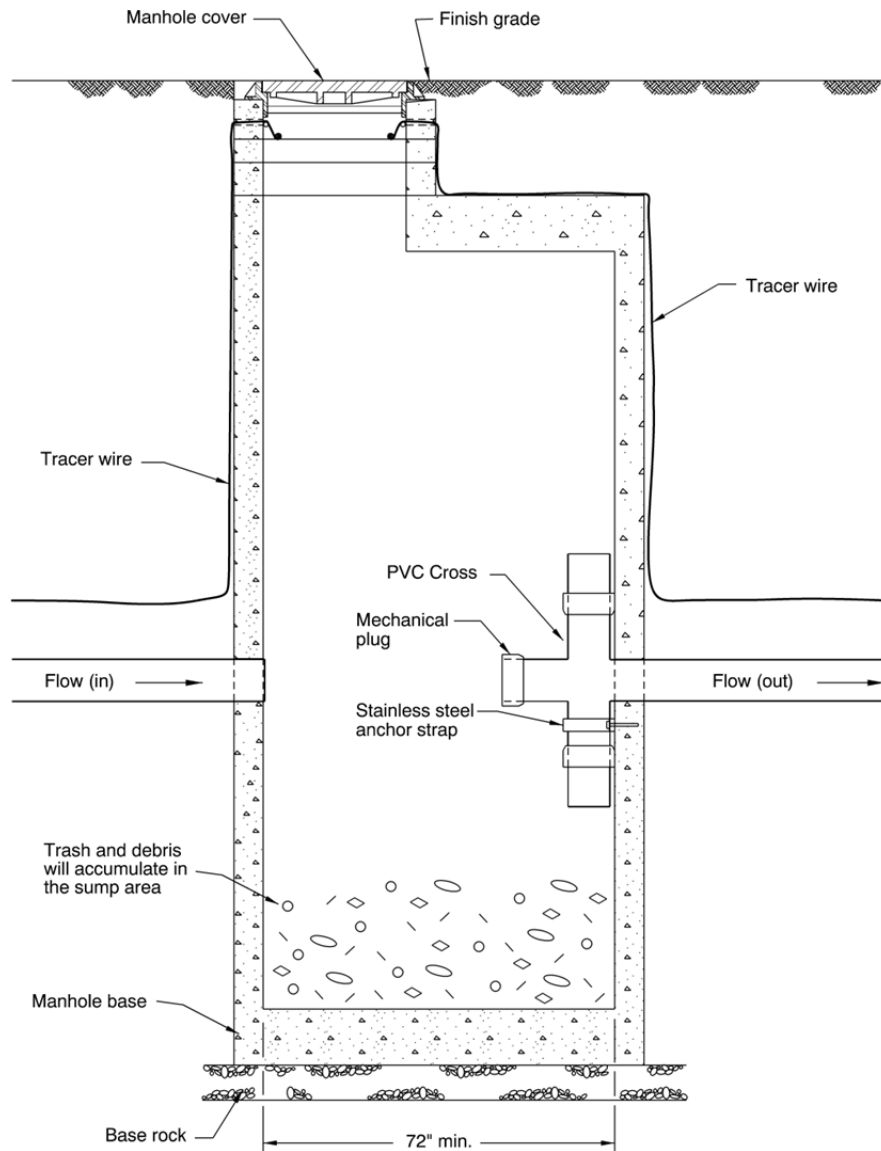
Figure B-11: Main vault with dead area and partitions (T8) B-12

Figure B-12: Main tank (T8)..... B-13

Figure B-13: Outlet Flow Control components (T13) B-14

Figure B-14: Riprap Pad (T19) B-15

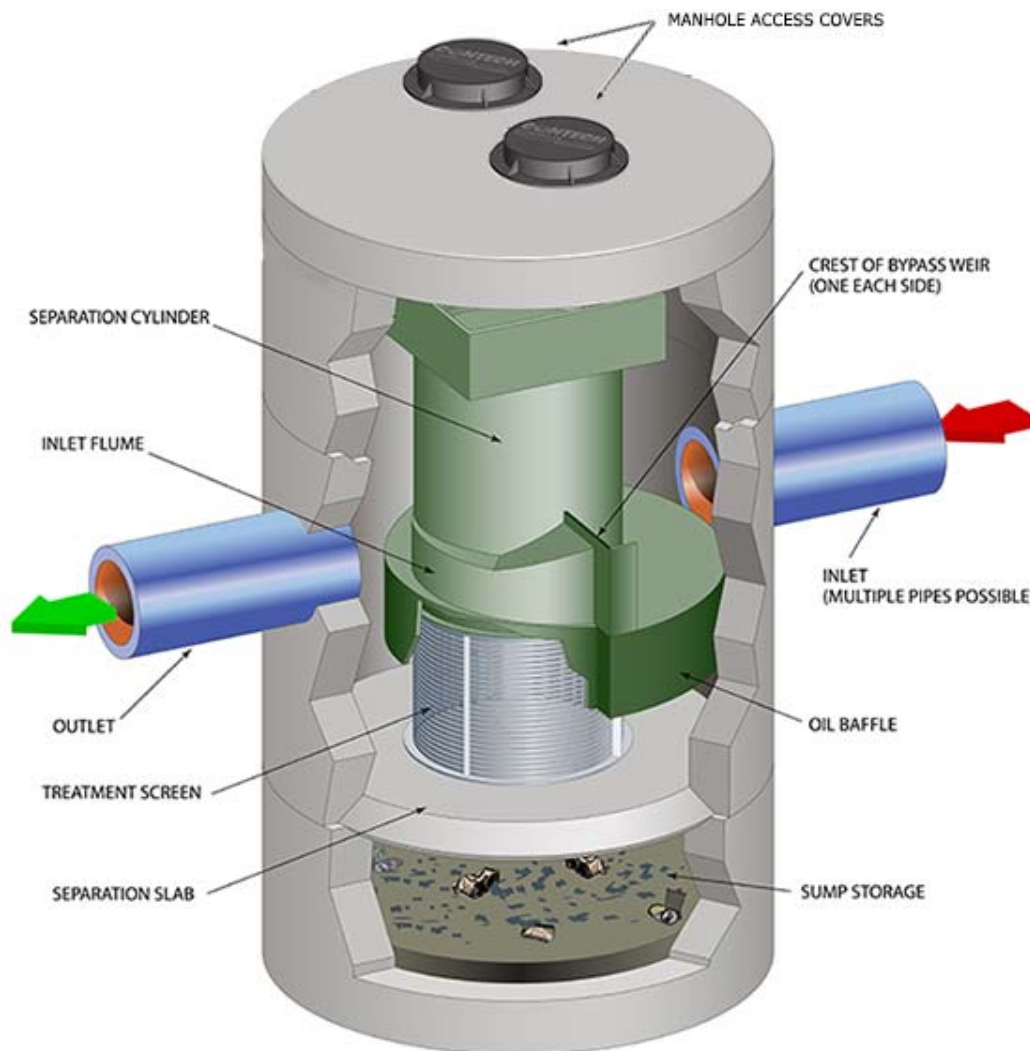
Figure B-15: Field Markers B-16



A pollution control manhole is used to remove coarse sediment and debris transported by stormwater runoff before the water enters the detention facility. A pre-treatment facility extends the service life and efficiency of the detention facility. These manholes will most likely have a separate DFI assigned to them.

Figure B-1: Pre-treatment Manhole (T1) – Pollution Control Manhole

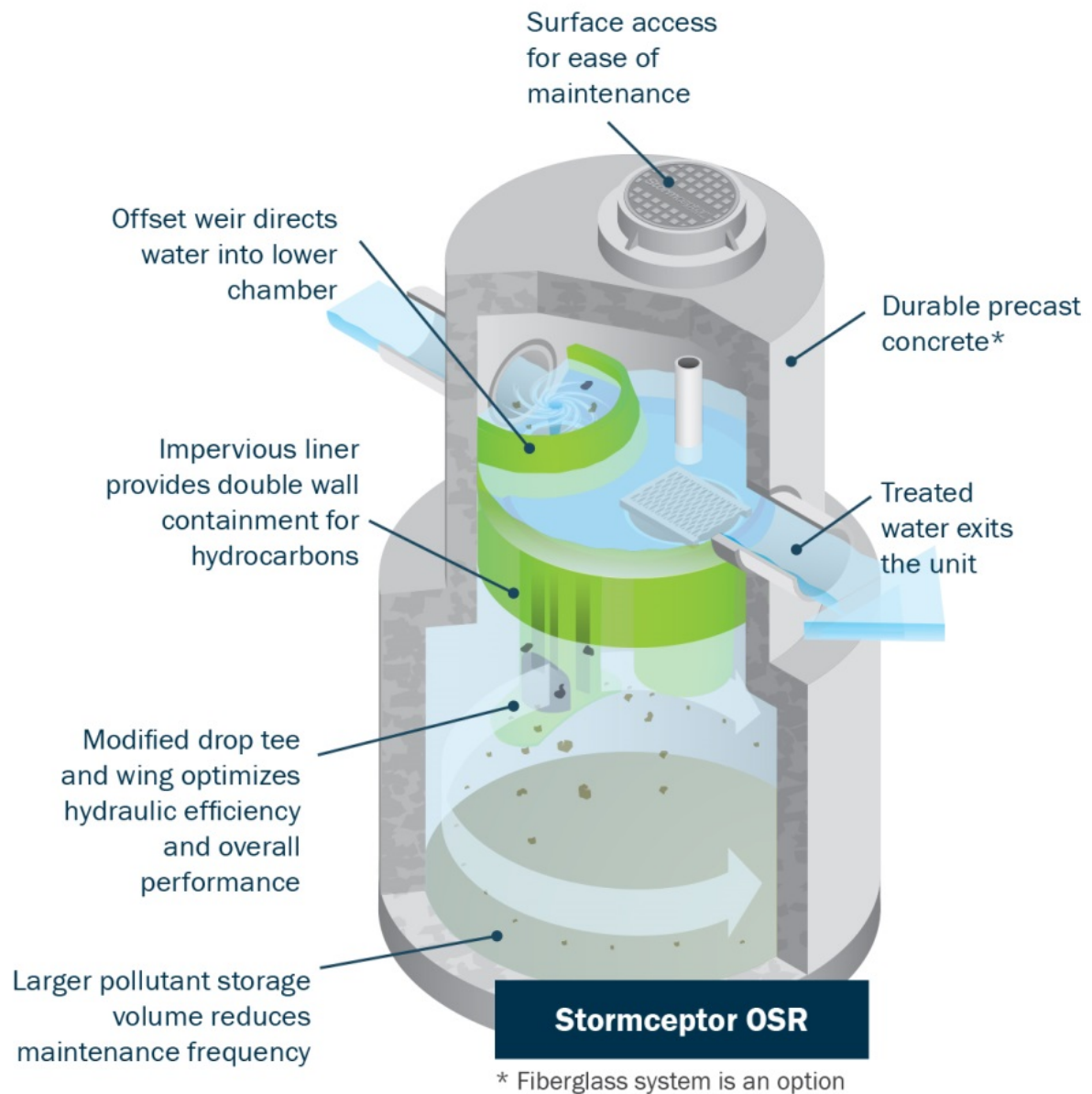
CDS



The “CDS” System by CONTECH is proprietary structure used to remove coarse sediment, debris, and oil transported by stormwater runoff before the water enters a pond. These structures are produced and sold under exclusive legal right of the inventor or maker. Proprietary structures are assigned a DFI and a separate O&M manual would be provided to explain how the structure operates and details the maintenance actions.

Figure B-2: Water Quality Manhole (T2-A) – CDS

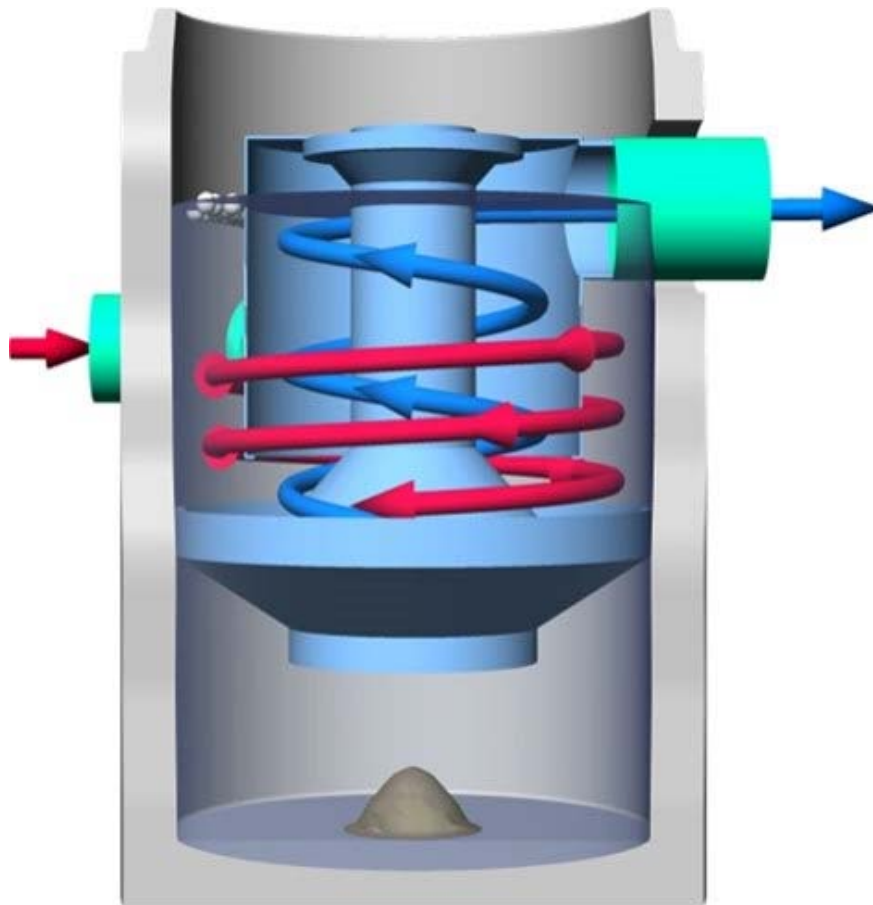
Stormceptor



The “Stormceptor” System by Rinker Materials is proprietary structure used to remove coarse sediment, debris, and oil transported by stormwater runoff before the water enters a pond. Proprietary structures are assigned a DFI and a separate O&M manual would be provided to explain how the structure operates and details the maintenance actions.

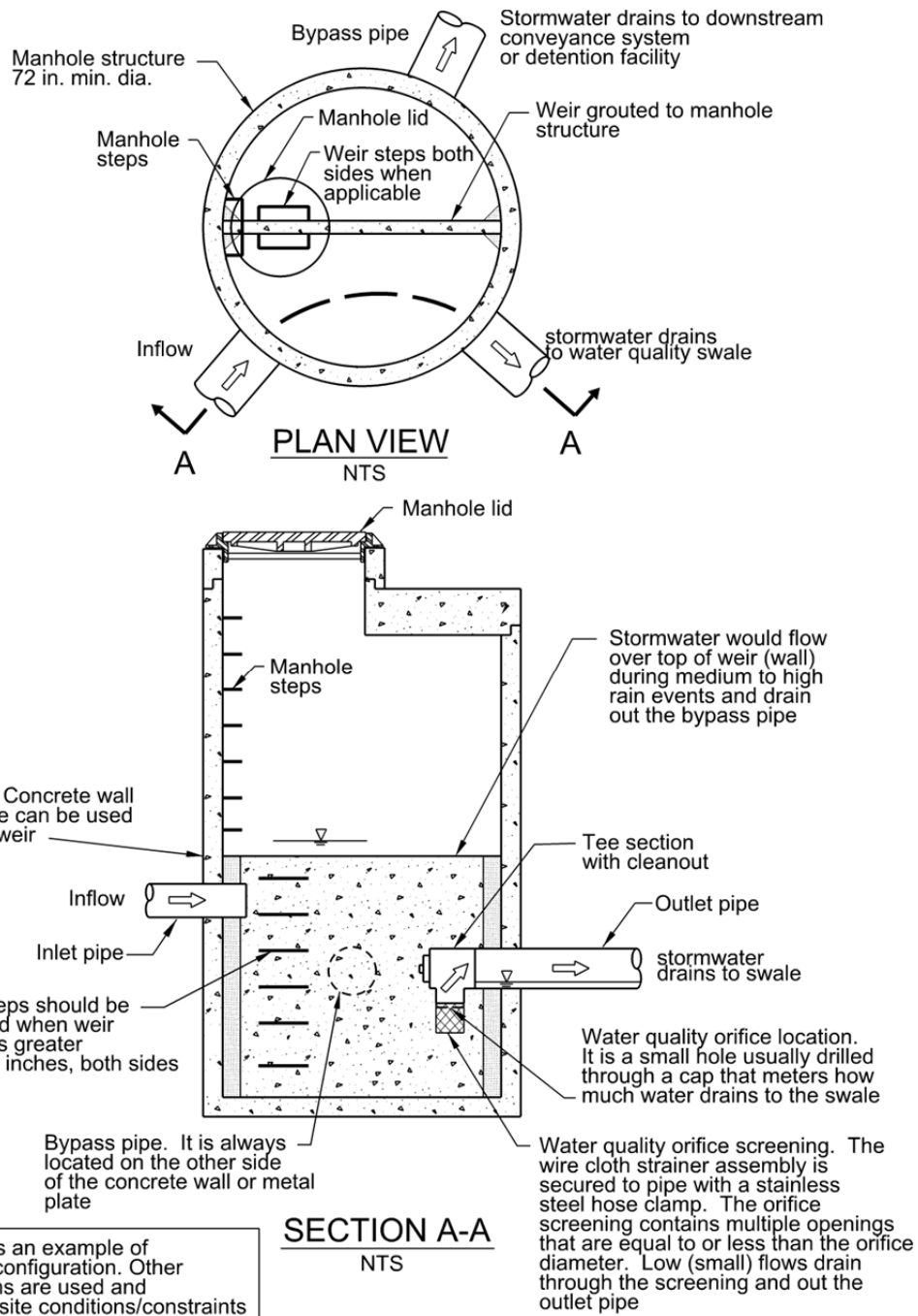
Figure B-3: Water Quality Manhole (T2-B) – Stormceptor

Downstream Defender



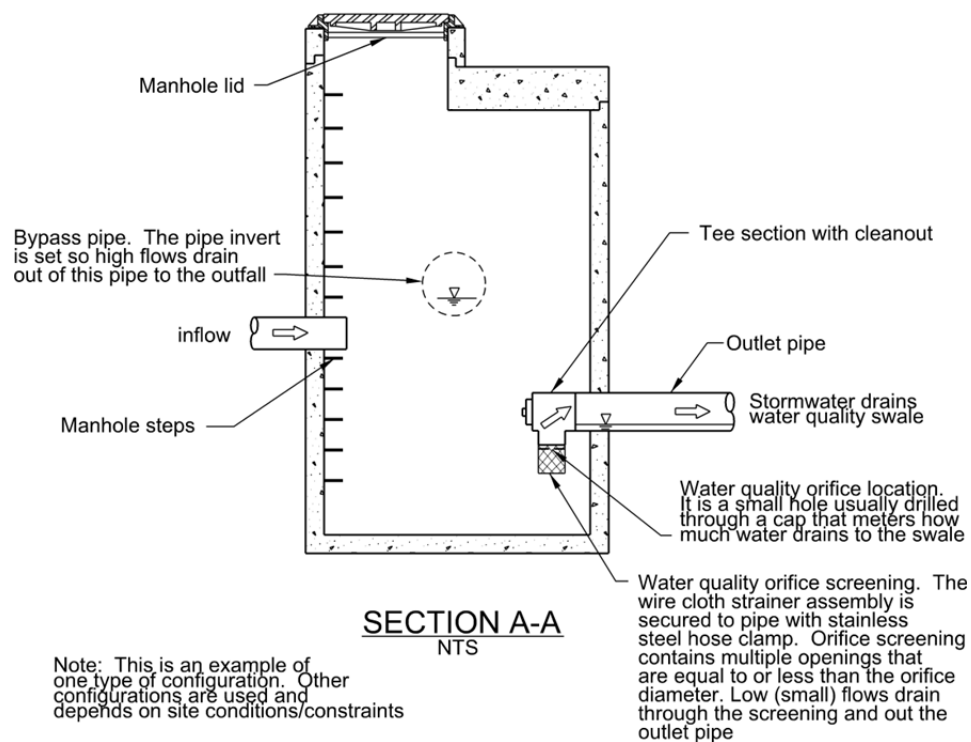
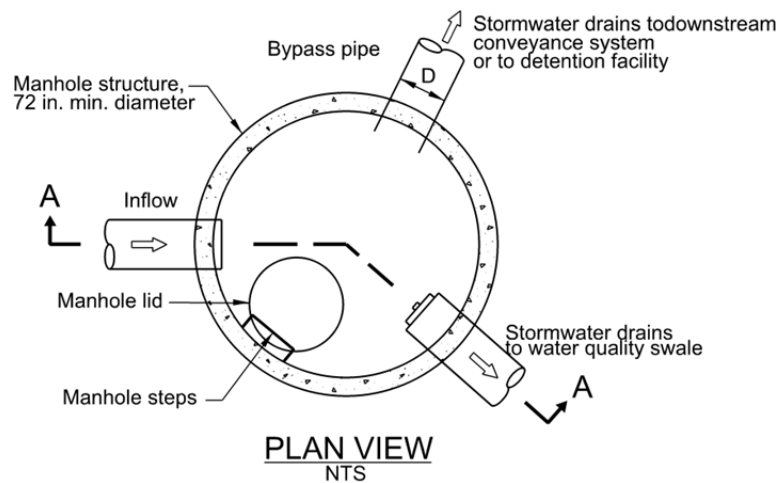
The “Downstream Defender” proprietary structure is used to remove coarse sediment and debris transported by stormwater runoff before the water enters a pond. Proprietary structures are assigned a DFI and a separate O&M manual would be provided to explain how the structure operates and details the maintenance actions.

Figure B-4: Water Quality Manhole (T2-C) – Downstream Defender



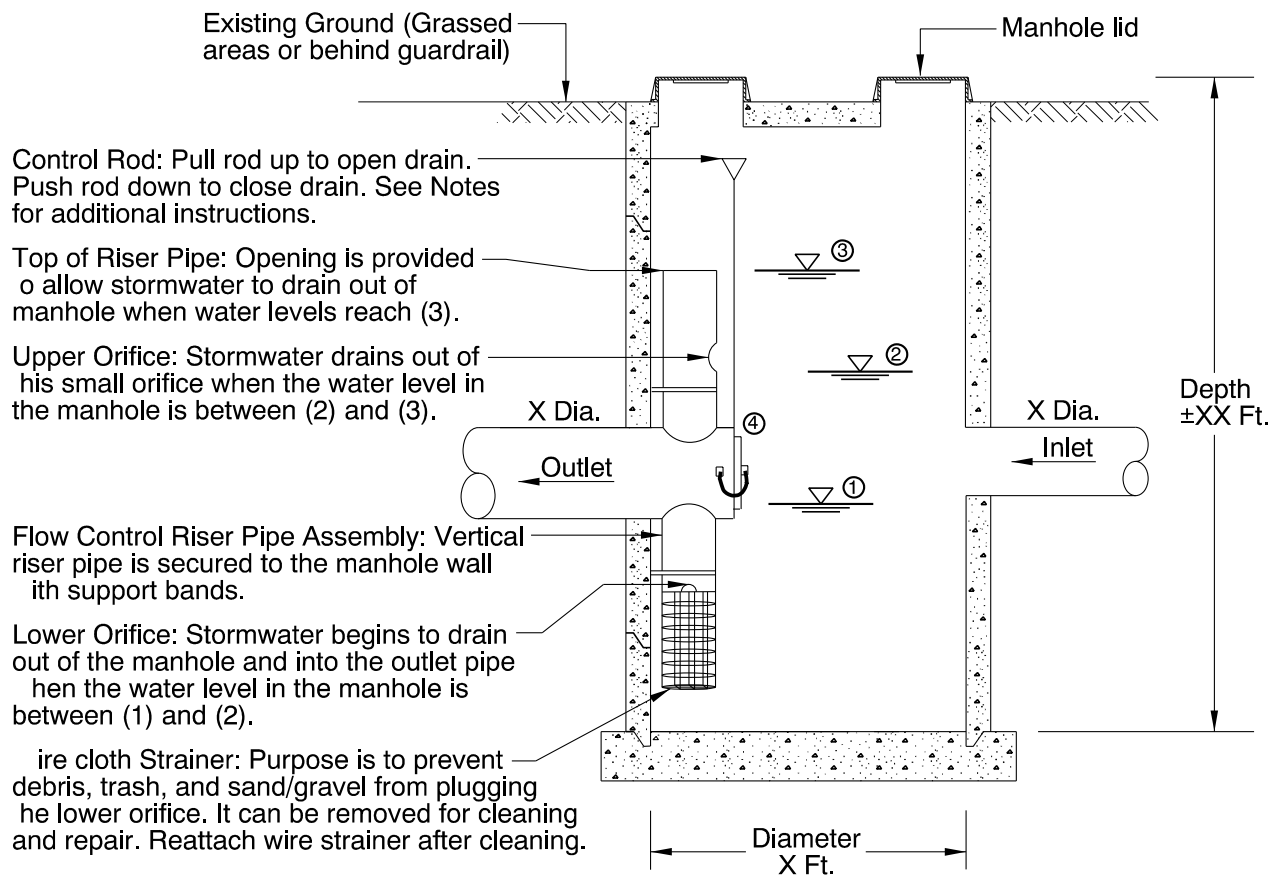
A manhole installed before the detention facility inlet with built-in weir to route water in multiple directions. The splitter routes design high flows into the detention facility but allows low flows to bypass (drain around) the detention facility through a storm drainage system into a water quality facility.

Figure B-5: Flow splitter manhole (T3) – Weir type flow splitter



A manhole installed before the detention facility inlet with built-in components to route water in multiple directions. The splitter routes high flows into the detention facility but allows low flows to bypass (drain around) the detention facility through a storm drainage system and into a water quality facility such as a swale. This flow splitter manhole does not have a built-in weir.

Figure B-6: Flow splitter manhole (T3) – Orifice type flow splitter



FLOW CONTROL STRUCTURE

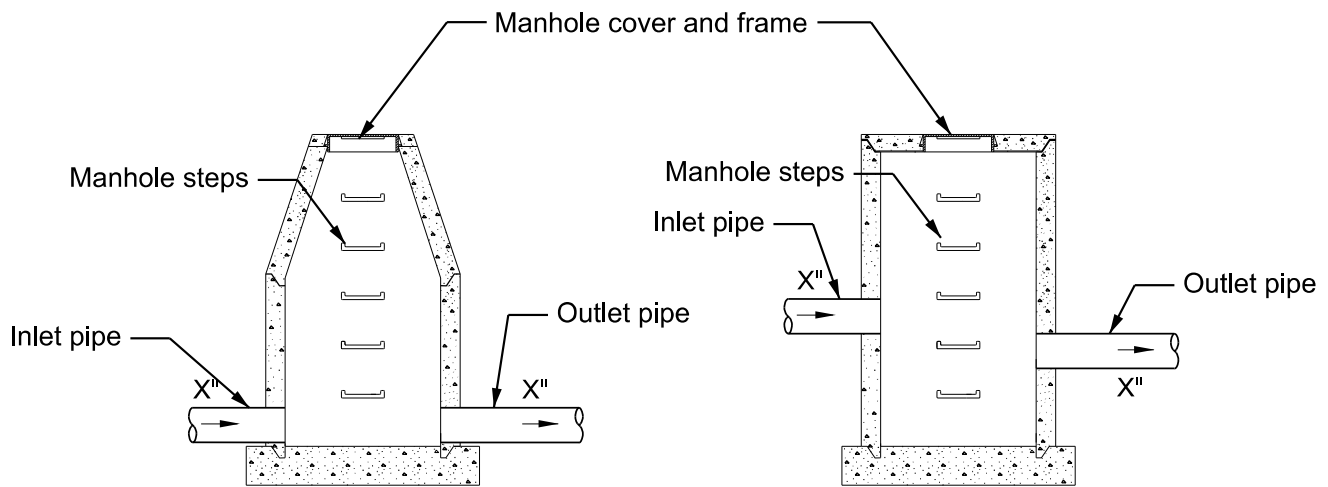
N.T.S

Notes:

Stormwater from manhole structure will drain into the outlet pipe when reaching elevations (1), (2), and (3).

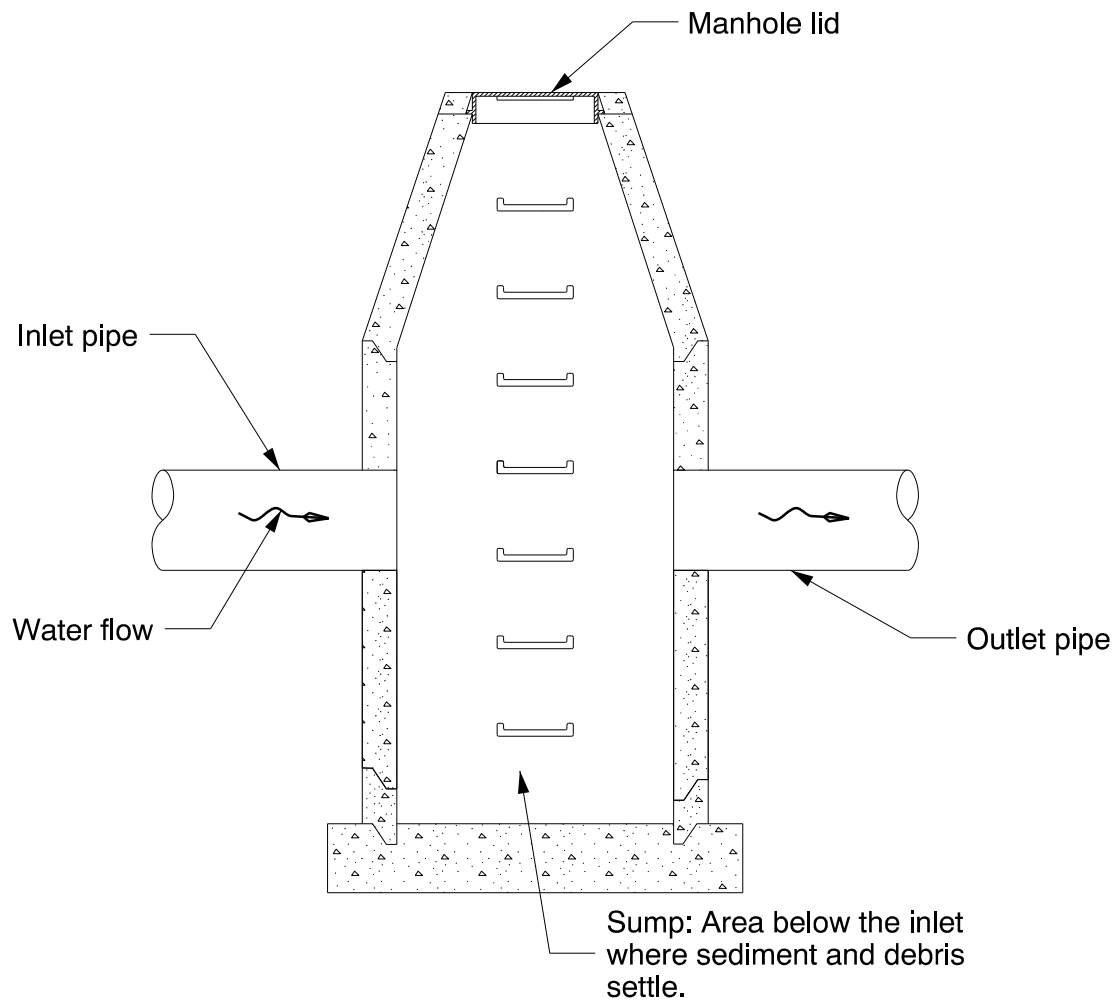
Control Rod can be used to open shear gate (4). Water level can be drained to (1) when the shear gate is open. Vacuum pumping is necessary to remove water below (1). Draining manhole may be necessary to inspect or during maintenance work. Shear gate is closed during normal operation.

Figure B-7: Flow Control Manhole (T4)



A concrete structure provided to access a storm drainage system for inspection and maintenance. A standard manhole is circular, 4 feet in diameter, and has a cast iron lid/cover. Typically used when two or more storm drain pipes come together, change in pipe sizes, and changes to horizontal alignments. Standard manholes may also have sumps to allow for sediment and debris collection. These will most likely be found at the inlet of the detention facility.

Figure B-8: Standard Manhole (T5)

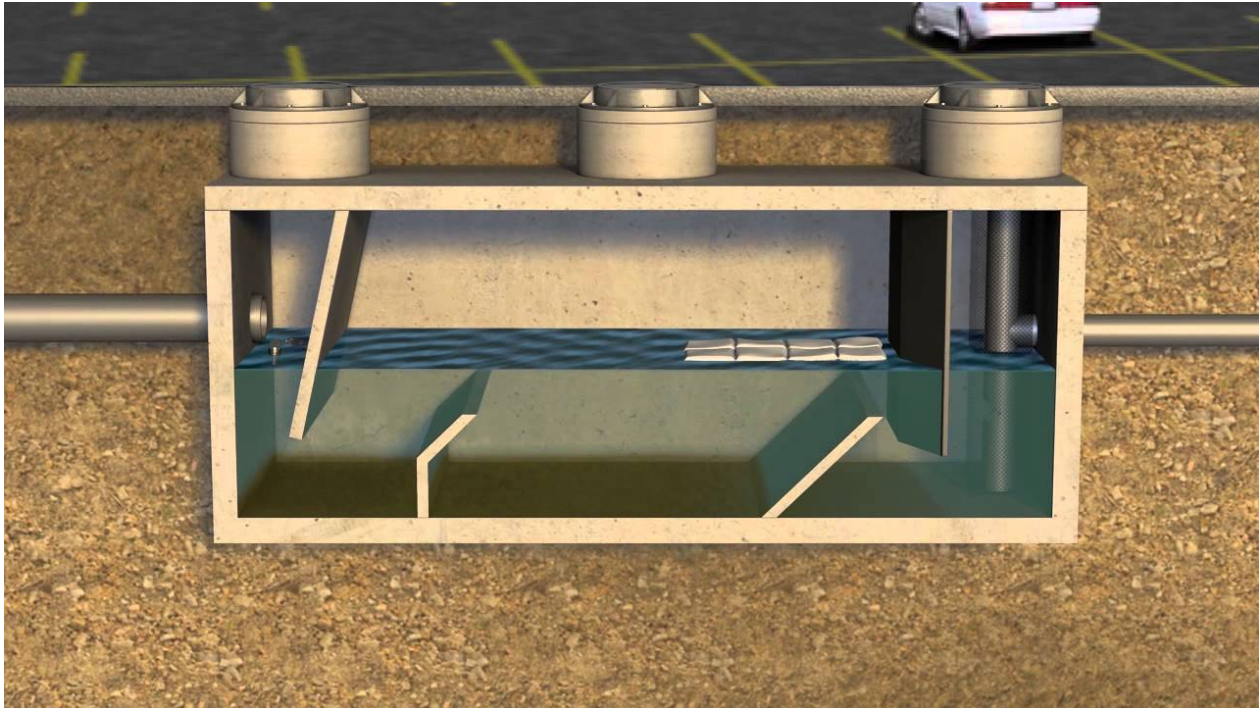


A sump manhole may be located upstream of the detention facility. It helps provide primary treatment to the detention vault by capturing sediment and large debris as they settle out of the stormwater runoff. The sump is the space below the manhole outlet pipe where sediment is collected.

Figure B-9: Sump (T6)



Figure B-10: Access Openings (T12)

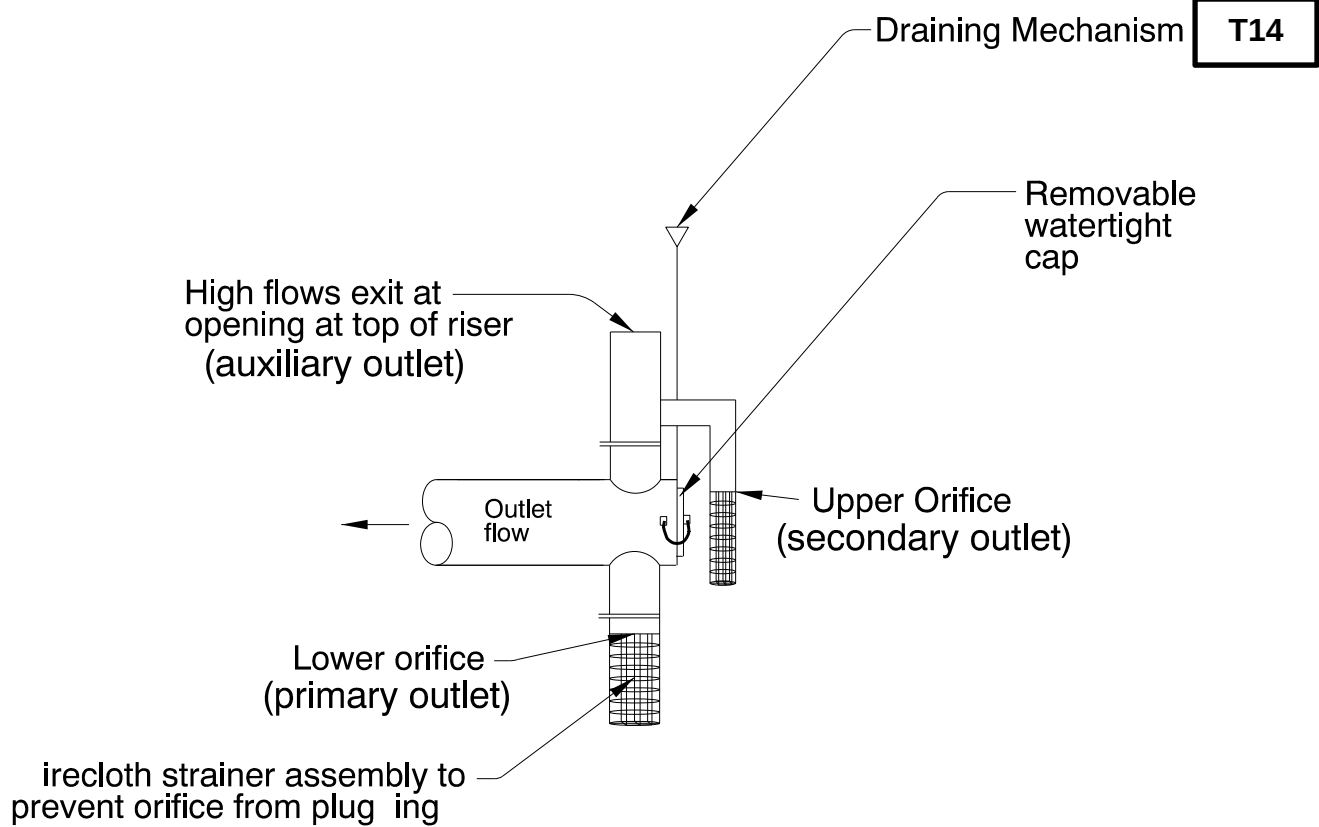


Detention vaults are typically rectangular shaped and constructed of reinforced concrete. They contain a dead area at the bottom of the vault to collect sediment that settle out of stormwater. Dead areas within the vault may be separated by partitions that help retain settled sediment.

Figure B-11: Main vault with dead area and partitions (T8)

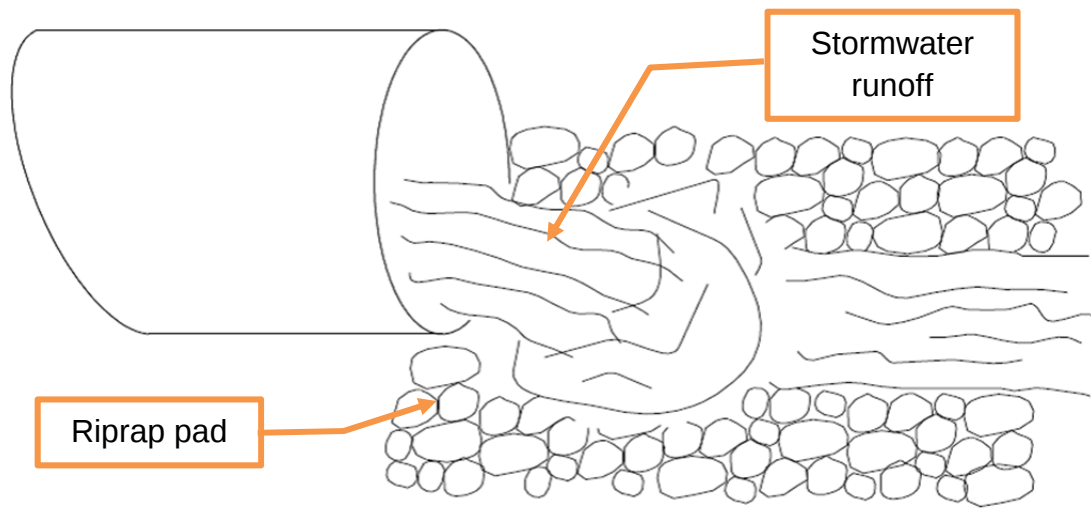


Figure B-12: Main tank (T8)



The outlet structure of the detention facility has different components to regulate the outflow of the stormwater from the detention facility. The lower orifice is the primary outlet component of the structure. Lower design flows will exit the facility via this outlet. The upper orifice is the secondary outlet. Higher flows will exit the facility via this outlet. The drainage mechanism (T13) controls the removable watertight cap. The riser pipe is the auxiliary outlet. This structure allows high flows to exit the facility during large storm events.

Figure B-13: Outlet Flow Control components (T13)



Riprap rock placed at the end of a storm drain pipe or along the bottom of a drainage channel to reduce water flow velocities and minimize soil erosion. The length and depth of the riprap pad depends on ground slope, water flow velocity, and size of rock used to create the rock pad.

Figure B-14: Riprap Pad (T19)

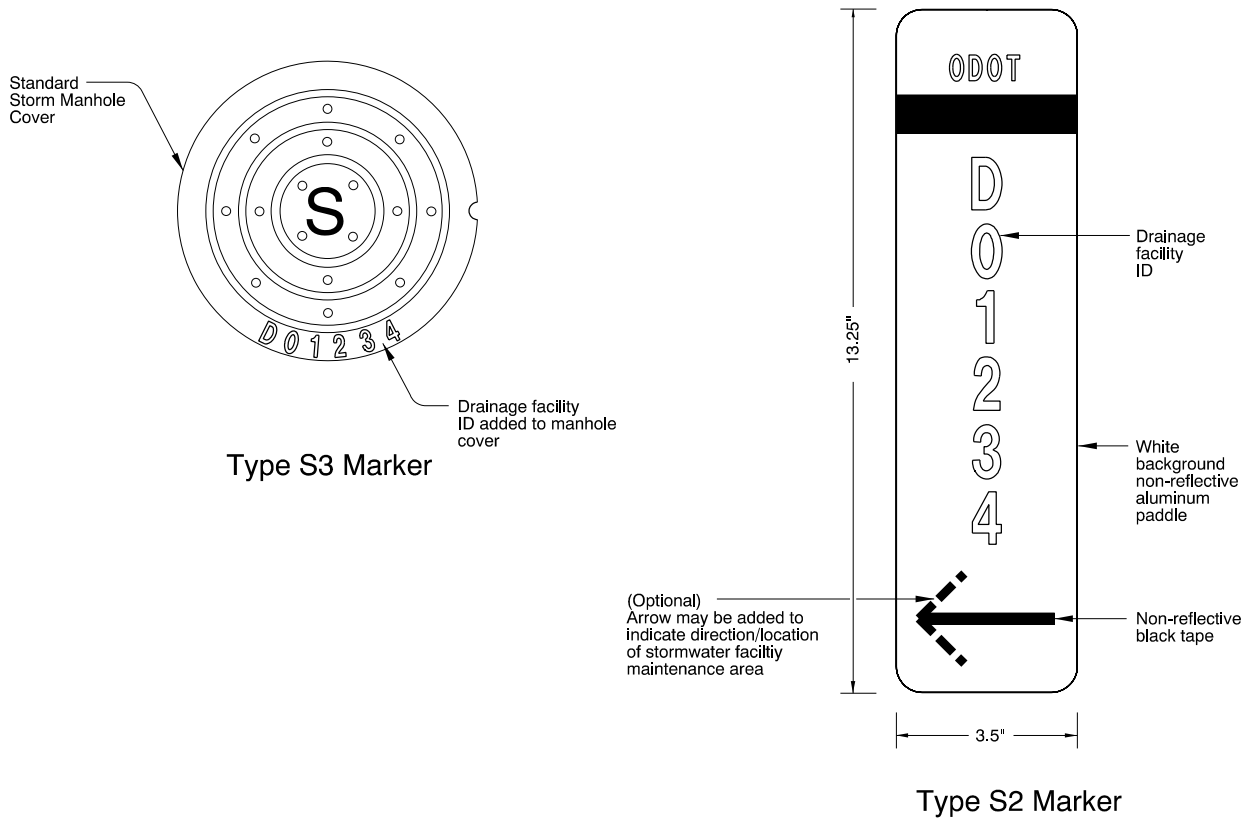


Figure B-15: Field Markers

C Appendix C – Proprietary Manufacturer’s O&M Manual

This appendix contains the operational and maintenance manuals that have been made available by the manufacturers of manifold detention systems.

Manuals are listed in this order:

- Contech CMP Detention Inspection and Maintenance Guide
- DuroMaxx SRPE Detention & Infiltration Maintenance Guide

Contech® CMP Detention Inspection and Maintenance Guide

Underground stormwater detention and infiltration systems must be inspected and maintained at regular intervals for purposes of performance and longevity.

Inspection

Inspection is the key to effective maintenance of CMP detention systems and is easily performed. Contech recommends ongoing, quarterly inspections. The rate at which the system collects pollutants will depend more on site specific activities rather than the size or configuration of the system.

Inspections should be performed more often in equipment washdown areas, in climates where sanding and/or salting operations take place, and in other various instances in which one would expect higher accumulations of sediment or abrasive/corrosive conditions. A record of each inspection is to be maintained for the life of the system.

Maintenance

CMP detention systems should be cleaned when an inspection reveals accumulated sediment or trash is clogging the discharge orifice.

Accumulated sediment and trash can typically be evacuated through the manhole over the outlet orifice. If maintenance is not performed as recommended, sediment and trash may accumulate in front of the outlet orifice. Manhole covers should be securely seated following cleaning activities. Contech suggests that all systems be designed with an access/inspection manhole situated at or near the inlet and the outlet orifice. Should it be necessary to get inside the system to perform maintenance activities, all appropriate precautions regarding confined space entry and OSHA regulations should be followed.

Systems are to be rinsed, including above the spring line, annually soon after the spring thaw, and after any additional use of salting agents, as part of the maintenance program for all systems where salting agents may accumulate inside the pipe.

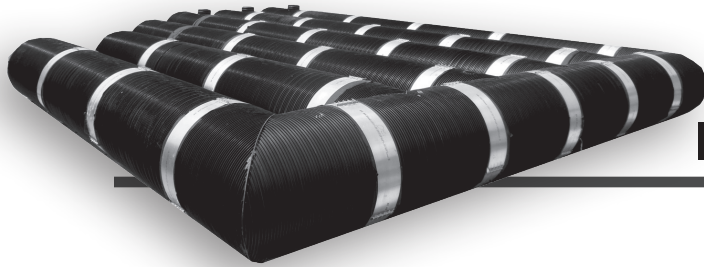
Maintaining an underground detention or infiltration system is easiest when there is no flow entering the system. For this reason, it is a good idea to schedule the cleanout during dry weather.

The foregoing inspection and maintenance efforts help ensure underground pipe systems used for stormwater storage continue to function as intended by identifying recommended regular inspection and maintenance practices. Inspection and maintenance related to the structural integrity of the pipe or the soundness of pipe joint connections is beyond the scope of this guide.



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DuroMaxx[®] SRPE Detention & Infiltration Maintenance Guide



DuroMaxx® Steel Reinforced Polyethylene (SRPE) Detention and Infiltration Systems

Maintenance

Underground storm water detention and infiltration systems should be inspected at regular intervals and maintained when necessary to ensure optimum performance. The rate at which the system collects pollutants will depend more heavily on site activities than the size or configuration of the system.

Inspection

Inspection is the key to effective maintenance and is easily performed. Contech Engineered Solutions recommends ongoing quarterly inspections of the accumulated sediment. Sediment deposition and transport may vary from year to year and quarterly inspections will help insure that systems are cleaned out at the appropriate time. Inspections should be performed more often in the winter months in climates where sanding operations may lead to rapid accumulations, or in equipment washdown areas. It is very useful to keep a record of each inspection. A sample inspection log is included for your use.

Systems should be cleaned when inspection reveals that accumulated sediment or trash is clogging the discharge orifice. Contech suggests that all systems be designed with an access/inspection manhole situated at or near the inlet and the outlet orifice. Should it be necessary to get inside the system to perform maintenance activities, all appropriate precautions regarding confined space entry and OSHA regulations should be followed.

Cleaning

Maintaining an underground detention or retention system is easiest when there is no flow entering the system. For this reason, it is a good idea to schedule the cleanout during dry weather.

Accumulated sediment and trash can typically be evacuated through the manhole over the outlet orifice. If maintenance is not performed as recommended, sediment and trash may accumulate in front of the outlet orifice. Manhole covers should be securely seated following cleaning activities.

Inspection & Maintenance Log Sample Template

_____ " Diameter System			Location: Anywhere, USA		
Date	Depth of Sediment	Accumulated Trash	Maintenance Performed	Maintenance Personnel	Comments
12/01/14	2"	None	Removed Sediment	B. Johnson	Installed
03/01/15	1"	Some	Removed Sediment and Trash	B. Johnson	Swept parking lot
06/01/15	0"	None	None		
09/01/15	0"	Heavy	Removed Trash	S. Riley	
12/01/15	1"	None	Removed Sediment	S. Riley	
04/01/15	0"	None	None	S. Riley	
04/15/15	2	Some	Removed Sediment and Trash	ACE Environmental Services	



Support

Drawings and specifications are available at www.ContechES.com.

Site-specific support is available from our engineers.

DuroMaxx®
STEEL REINFORCED PE TECHNOLOGY

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