

smartPOND
Automated Stormwater Control.

OUTFALL VALVE INSTALLATION GUIDE

CONVERGENT
WATER TECHNOLOGIES

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SMARTPOND OUTFALL VALVE INSTALLATION GUIDE

The smartPOND outfall valve may be installed in a near-completely assembled configuration. There are three primary assemblies to the system:

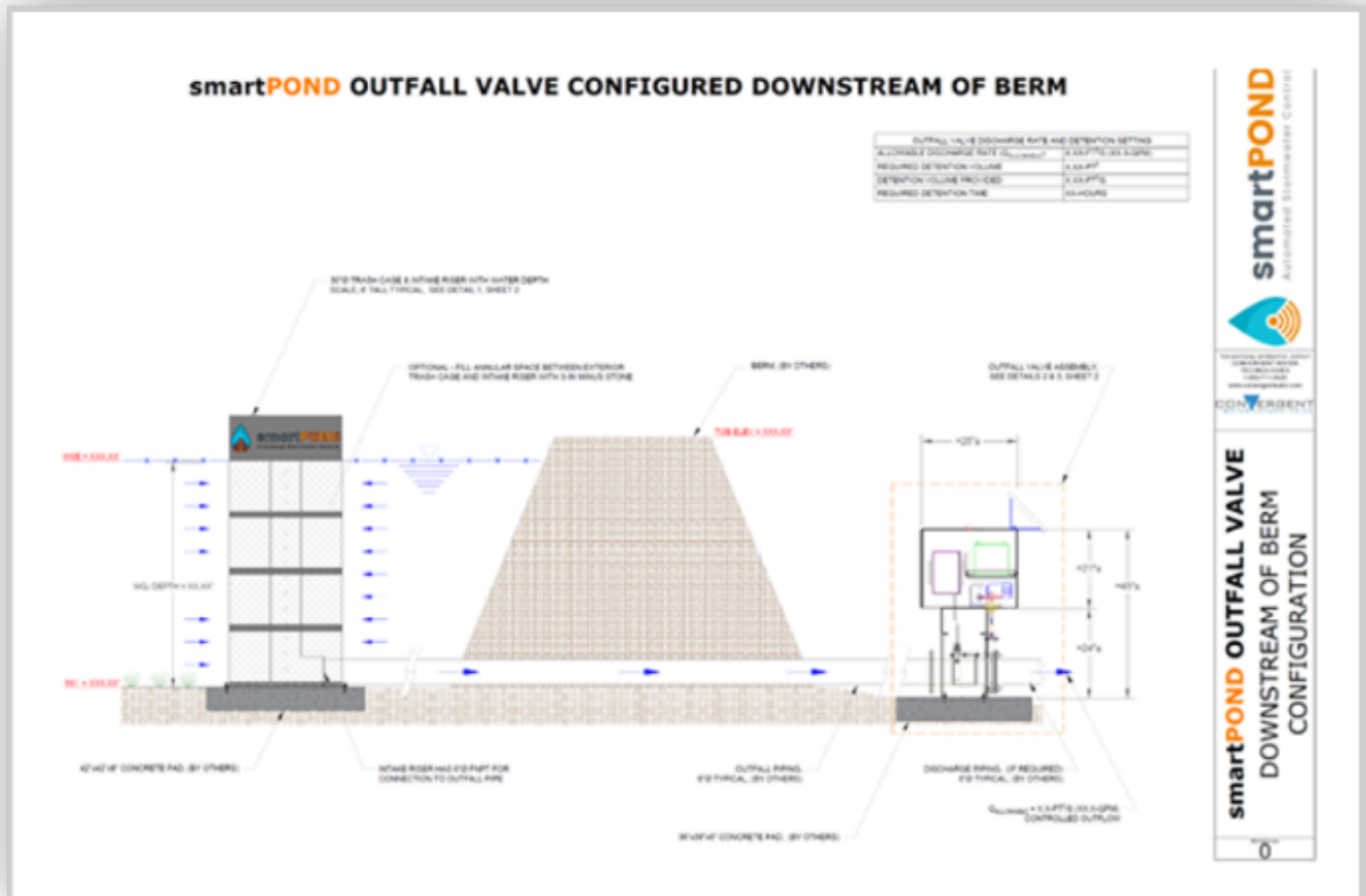
- Outfall valve assembly with cabinet
- Inlet riser screen assembly
- Electronics kit with solar panel and battery

TOOLS, EQUIPMENT, AND MATERIALS YOU WILL NEED

- Excavator or front-end loader equipment to carry the outfall valve assembly and inlet screen to the installation location
- Concrete hammer drill to set anchors for the inlet screen and outfall valve assembly
- PVC plumbing adhesive to make the pipe connections
- Socket set to connect cabinet to vault lid and pipe flange to valve outlet
- Crescent wrench for large bolts on valve flange
- Silt fence to wrap inlet screen in case of loose soils in the area
- Geotextile to stabilize disturbed soil areas
- Note: this list does not include required tools and equipment to pour the required concrete pad.



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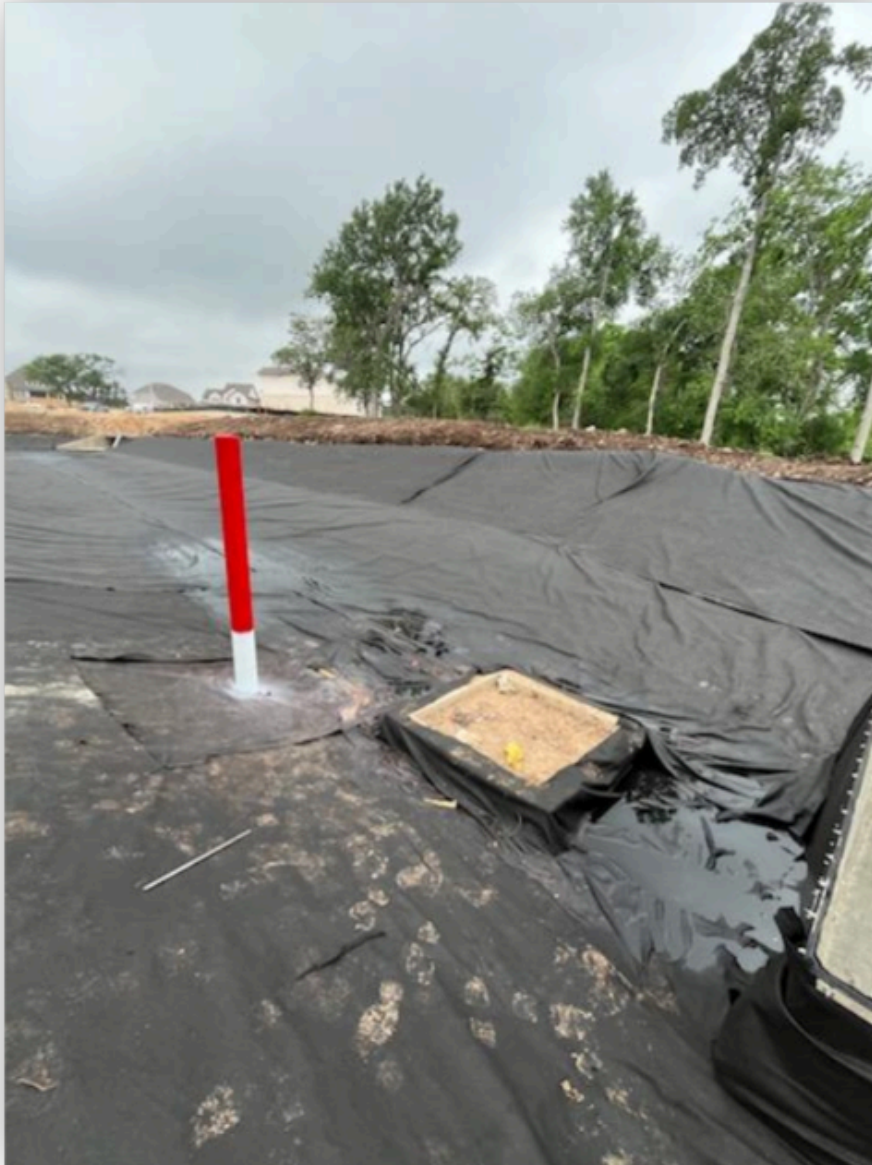


INSTALLATION INSTRUCTIONS

- Ensure that proper excavation and earth work is complete prior to installing the smartPOND outfall valve
- Surrounding soils should be stabilized or covered



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- At the sump or desired drainage point, pour a 4' x 4' x 4" concrete pad at grade or 1" below grade
- Install the inner perforated square pipe of the riser assembly to the concrete pad using 3/8" concrete anchors

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- Slide the outer screen around the perforated square tubing and secure to the pad using 3/8" concrete anchors.

SMARTPOND OUTFALL VALVE INSTALLATION GUIDE



- Attach the discharge pipe to the inlet screen riser and route to location of the valve assembly

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- On the downstream, outlet end of the drainage pipe, pour a 4'x4'x4" concrete pad to support the outfall valve assembly. 8. Ensure there is adequate slope to the pipe to facilitate drainage from the pond
- Use 3/8" concrete anchors to secure the outfall valve to the concrete pad. Note the direction of flow and ensure the correct end is connected to the drainage pipe. The butterfly valve within the outfall valve assembly is the OUTLET end of the system.
- Use the supplied schedule-40 6" PVC pipe flange to connect to the INLET side of the outfall valve.

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- The outfall valve may open discharge from the release end of the system, but if applicable, a 6" outlet pipe may be routed from the discharge side of the assembly.
- Once the outfall valve assembly and inlet screen are installed and all plumbing is complete, final earth work and backfilling may take place. Do not bury the lower half of the outfall valve assembly.

Important: Ensure the entire lower assembly of the outfall valve kit is above the surface and the surrounding soil is stabilized or backfilled with rock, as shown on the right.



SMARTPOND OUTFALL VALVE INSTALLATION GUIDE



- With final earth work completed, activation of the outfall valve may be requested. A manufacturer-certified technician will arrive with the solar kit, battery, and control electronics to activate the system and certify for warranty.
- Ensure that the cabinet door is closed and locked upon completion of installation.
- Wrap the inlet riser screen assembly with silt fence if loose and disturbed soils still exist in the pond site. Leave wrapped until well vegetated, then remove.