

## **Hamilton County Water Quality Storm Water As-Built/Record Drawing Requirement List**

Prior to final acceptance by the County Engineer and issuance of any *Certificate of Occupancy or Final Plat Approval*, all new developments, redevelopments, and/or additions shall submit an inventory of the constructed stormwater drainage system, whether public or private, to the Hamilton County Water Quality Program in electronic format. Electronic As-Built drawings shall be submitted in AutoCAD and .pdf format and shall show the approved and constructed layout of the stormwater systems at the associated site. The as-built drawing shall include all stormwater features on the development, whether new or existing, including the outfall to the County drainage system (ex: catch basins, conduits, hydrologic features including ponds, streams, culvert inlets and outfalls, and all pervious surfaces, etc.).

Certain engineered water quality conveyances such as engineered swales and grass filter strips have a required slope and cross section to give maximum water quality benefits for the area and will therefore also require as-built cross sections to determine if they are built per designed specifications.

### **As-Built Drawings shall at a minimum comply with the following items:**

- A registered professional engineer and surveyor will certify that the information furnished is a true and complete representation of the improvements that were constructed by the developer.
- The registered professional engineer shall certify that the information reflects the original design or is an approved substitute for the original design by completing the As-Built Detention Facility Engineer's Certification Form (Attached).
- The As-Built drawings shall be furnished in electronic format (both an AutoCAD R13 or greater and .pdf file) and shall be the true and accurate location and elevation of the structures shown, with a positional tolerance of 0.07 feet horizontal and 0.14 feet vertical.
- English units and NAD 83 State Plane co-ordinates shall be used. ASCII format may be used if the table is included in the drawing.
- All drainage structures and manholes shall be located by the center of the structure or the manhole cover when fully seated.
- Drainage features (including drainage manholes) shall at a minimum include the following:
  1. Drainage Structure Label (ex: oil skimmer, water quality unit type/model, etc.);
  2. Northing, Easting, and Rim Elevation;
  3. Invert Elevations;
  4. Size, Material, and Direction of flow for each pipe entering and leaving the drainage feature;
  5. Detail drawings of water quality features including, but not limited, to profiles, contours, and elevations (ex: bio-retention areas, swales, grass filter strips, etc.).

- Detention systems shall at a minimum include the following:
  1. Northing, Easting, and Elevation of the limits, corners, and bottom of detention systems;
  2. Invert Elevation, Size, Material, and Direction of flow for each pipe entering and leaving the detention system;
  3. Detail drawing for all outlet control and emergency overflow structures;
  4. Detail drawing for any other detention systems as necessary (ex: underground detention system);
  5. Required and provided detention storage volume.



# Hamilton County Water Quality Program

1250 Market Street, Suite 3044  
Chattanooga, TN 37402  
Phone 423-209-7851, Fax 423-209-7852



## As-Built Water Quality BMP Engineer's Certification

Confirm by stating area, dimensions, volumes or elevation:

Date: \_\_\_\_\_

Pond # \_\_\_\_\_

Location: \_\_\_\_\_

Street Name: \_\_\_\_\_

	Design	As-Built
- Water Quality Treatment volume	_____	_____
- Water Quality Treatment elevation	_____	_____
- Invert elevation & size of lowest orifice/weir	_____	_____
- Invert elevation & size of second lowest orifice/weir	_____	_____
- Invert elevation & size of third lowest orifice/weir	_____	_____
- 2 year volume	_____	_____
- 2 year water surface elevation	_____	_____
- 25 year storage volume	_____	_____
- 25 year water surface elevation	_____	_____
- Outlet velocities (v25) into down-stream, receiving conveyance system	_____	_____
- 100 year storage volume	_____	_____
- 100 year water surface elevation	_____	_____
- Outlet velocities (v100) into down-stream, receiving conveyance system	_____	_____
- Top of berm/wall elevation (lowest)	_____	_____
- Freeboard above 100-year WSE	_____	_____
- Principal spillway type	_____	_____
- Emergency spillway type	_____	_____

Storm	Pre-developed Allowable Rate From BMP	Post-Developed Design Rate	As-Built Rate
1 year peak flow			
2 year peak flow			
5 year peak flow			
10 year peak flow			
25 year peak flow			
100 year peak flow			

This the \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_  
Day Month Year

Signature: \_\_\_\_\_ Printed Name: \_\_\_\_\_

Tennessee P.E. Registration #: \_\_\_\_\_

I, \_\_\_\_\_, a registered professional engineer in the state of Tennessee, hereby certify with my signature and seal that the detention facility (facilities) for the project known as \_\_\_\_\_, LDP# \_\_\_\_\_, for owner/developer \_\_\_\_\_ of the City of Chattanooga, Hamilton County, Tennessee has been constructed in conformance with the permitted plans and specifications, that the actual stage-storage relationships will not produce discharge rates greater than those stated in the accepted hydrology report for the respective storm events, and that the pond functions in accordance with the City of Chattanooga requirements. I further certify that downstream, off-site property(ies) are not receiving discharges at erosive velocities or velocities greater than the pre-development rates, whichever is less. To support my conclusions, I hereby certify that the above data are field measurements of the as-built pond made on \_\_\_\_\_.