



Stormwater BMP As-Built Survey Requirements

The final survey shall be a new stand-alone drawing, independent of the approved plan, and shall consist of the following, at a minimum.

- Dimension for BMPs (overall length, width, avg. depth, verification of bank and bench slopes and cross lengths, etc.)
- Cross-sections minimum interval may vary depending on size of BMP; must be able to adequately convey BMP composition (Basin cross-sections: @ 50-ft. intervals, minimum)
- Profile of the entire length of BMP.
- Contours of the pond area(s), swales, etc.
- Verification of total volume(s)
- All BMPs field located referenced from adjacent property lines (e.g. pond referenced from top of bank)
- Storm pipe sizes, inverts, & slopes (highlight variances per approved plan)
- Specify survey datum used.
- Any facilities requiring media should be surveyed as each layer is placed so that a representative cross section of the BMP can be included in the as-built.
- If any BMPs require plantings, documentation of the plants installed shall be provided.
- All “As-Built” plans shall be prepared and stamped by a Professional Engineer or Licensed Surveyor registered in the Commonwealth of Virginia, certifying that the stormwater management facilities have been constructed in accordance with the approved plan.
- **Additional Retention/Detention Basin Requirements** – see page 2
- **Additional Bioretention Requirements** – see page 3.

Tolerances for as-built surveys:

- Maximum deviation of any invert from plan grade: +/- 0.05’
- Total deviation of both inverts at end of a particular line: +/- 0.08’
- Maximum slope deviation +/- 0.02% between any two points in the line from the plan slope

Stormwater Retention/Detention Basin As-Built Requirements

Dimensions

- Field located top of bank referenced from adjacent property lines
- Basin top width, length & average depth
- Basin cross-sections (@ 50-ft. intervals, minimum)
- Side slope length & degree of slope (%)
- Contours of the ponding area
- Inverts & slope of incoming pipes & outfall pipe
- Rim elevation and invert of control structure
- Slope & cross-section of all on-site channels
- Verification of total volume (measured from top of bank)
- Identification of survey datum used

Stormwater Bioretention Basin As-Built Requirements

- Fill tickets showing composition of media used and soil testing is required. Soil testing to include a phosphorus index test is required for the soil media. (Refer to BMP Clearinghouse for further details, e.g. Level 1 and Level 2: Media mix tested for an acceptable phosphorus index (P-index) of between 10 and 30, OR Between 7 and 21 mg/kg of P in the soil media)