# APPENDIX I

# AS-BUILT CHECKLIST

**CHARLESTON COUNTY**
**STORMWATER MANAGEMENT**
**DRAINAGE AS-BUILT CHECKLIST**

DEVELOPMENT NAME & PHASE: _____

ADDRESS & TMS: _____

DEVELOPER/EMAIL/PHONE: _____

ENGINEER/EMAIL/PHONE: _____

CONTRACTOR/EMAIL/PHONE: _____

STORMWATER PERMIT#: _____

☐ Drop-Off, include a copy of this completed checklist and one full size (24"x36") set of as-built plans, do not drop off money or easement documents. Bring to Public Works (4045 Bridge View Drive, Suite A301).

☐ Submit electronically, include a copy of this completed checklist and as-built plans via PDF and DWG to: stormwater@charlestoncounty.org

## MATERIAL CHECKLIST:

☐ Date of survey with professional surveyor's seal, signature and certification.

☐ Engineer of Record As-Built Certification.

☐ Location Map with north arrow. Reference nearest road intersection on as-built drawing.

☐ Scaled Drawing of the drainage facility including: Pipe Material, Diameter, Length, Slope and invert elevations. Enter 'as-built' values beside 'designed' values. Example: ~~Designed Value~~ (Actual Value) Include same information for the first leg of existing downstream drainage pipe if connecting into an existing system.

☐ Locate roof, gutter and/or yard drains that tie-into storm drainage boxes (if applicable).

☐ Specify Structures (ie. Curb Inlet, Catch Basin, Junction Box, etc.) include top elev's and pertinent throat elevations.

☐ Datum used for construction documents **and** as-built drawing.

☐ Limits of underground detention features and/or engineered water quality treatment devices (if applicable). Provide location, dimensions, make or brand, model, serial number and maintenance manual for any engineered water quality treatment devices.

## POND CHECKLIST:

☐ Provide location of pond, property lines, road R/Ws, and other easements. Include pond access easement if applicable

☐ Top of wall or berm elevation.

☐ Width of berm at top of dam.

☐ Emergency spillway invert elevation. Show a min. of 4 spot elevs.

☐ Width of emergency spillway.

☐ Provide schematic cross-section of pond detail showing top/bottom elevations, WSE, side slopes (and littoral shelf if applicable)

**Pond Table:**

| Pond Identifier | Top of Pond Bank Elev. (Design/Actual) | Bottom of Pond Elev. (Design/Actual) | WSE (Design/Actual) | Orifice IE (Design/Actual) |
|---|---|---|---|---|
| A | | | | |
| B | | | | |
| C | | | | |

☐ Provide detail of outfall structure showing actual as-built elevations and dimensions to nearest hundredth of a foot.

☐ Provide schematic detail of any other BMPs/LID products (ie – pervious pvmt/pavers, bio-swales, underground detention, etc., with brief maintenance schedule of each on the as-built drawing.

☐ Show constructed pond contours at 1-foot elevations (to include pond bottom) and pertinent spot elevations. Provide area (SF) of each pond contour. Enter 'as-built' values beside 'designed' values. Example: ~~Designed Value~~ (Actual Value). Or provide table for each pond depicting the same.

☐ Required Water Quality Volume. (Choose one of the three options below)

1.) ☐ WQV provided meets or exceeds WQV required.

2.) ☐ WQV provided has deviated more than 5% below the design parameters. Engineer will reroute all storms to confirm adequacy. Engineer shall complete the 'Flow Rate Table' below to organize data for this option OR if there are any inconsistencies with the outfall structure and the approved plans. Engineer may also be required to provide stage/storage output file and input parameters.

3.) ☐ WQV provided has deviated more than 10% below design parameters. Owner will make field adjustments.

**Flow Rate Table:**

| Pond Identifier | Storm Frequency | Pre-developed release rates as indicated in original design (cfs) | Post-developed release rates as indicated in original design (cfs) | Actual release rates based on as-built survey of detention pond (cfs) | Post-developed pond staging as indicated in original design (ft) | Actual pond staging based on as-built survey of detention pond (ft) (Top of Dam = ____') |
|---|---|---|---|---|---|---|
| A | 2 | | | | | |
| | 5 | | | | | |
| | 10 | | | | | |
| | 25 | | | | | |
| | 50 | | | | | |
| | 100 | | | | | |

☐ Locate Forebay(s) recognizing appropriate features.

☐ Locate outlet erosion protection. Specify dimensions: width and length in feet.

☐ Locate drainage conveyance channels (ie. - swales/ditching) with spot elevations to demonstrate proper grading to convey runoff to appropriate catch basins/yard inlets at a frequency of no less than every 50' for swales less than 18" deep and at a frequency of no less than every 100' for ditches/swales more than 18" deep. Provided contours are desired.

**OTHER COMMENTS:**

1. ☐ Provide executed Operating Permit.
2. ☐ Include redlined mark-up if this is an as-built re-submittal.
3. ☐ Include notes or comments from BMP field inspection or LID test performed (e.g. Infiltration Rates, etc.)

**AS-BUILT SUMMARY:** (To be completed by County Reviewer)

Passed ☐ County reviewer to notify engineer to forward electronic file (Geo-Referenced CAD file and pdf) to the PWD.

Failed ☐ Owner's engineer will re-calculate/certify/resubmit.

Failed ☐ Owner will make field adjustments and resubmit as necessary.