Bioretention and Infiltration BMPs for Media Borough Document #4100080702 Media Borough

PROJECT DESCRIPTION We created a network of eight rain garden/bioretention facilities at the intersection of W. Jefferson and Church Streets. With two facilities at each intersection corner, all eight are connected to each other, utilizing the existing sewer system for stormwater overflow. We increased the capture area of the rain gardens by grading the surrounding grass verge to slope down into the rain garden intake areas. Project design took place during 2019-2020. The project was delayed due to the COVID pandemic. Construction took place in the fall of 2022.

<u>PROJECT GOALS</u> The goal of the project was to slow down, capture and infiltrate the high volume of stormwater runoff that is channeled to this area from a topographical high point in the Borough with strategically placed Green Infrastructure BMPs, reducing its destructive impact on this district and on our local water.

PROJECT RESULTS

The rain garden facility network can capture and retain 800 cubic feet of stormwater, allowing it to infiltrate into the ground. Should the volume of water collected surpass what facility capacity, it enters the borough's stormwater system. The project reduces total suspended solids of the previous stormwater runoff by 80% according to the "PADEP – BMP Effectiveness Values"

BEFORE - South Ave. & W. Jefferson St. intersection



AFTER – South Ave. & W. Jefferson St. intersection



PROJECT COSTS Total Project Cost: \$305,019. Growing Greener Grant: \$163,650. Media Borough Match: \$141,369.

LESSONS LEARNED

The project was far more expensive than originally anticipated. The Borough learned that to realize its stormwater mitigation goals for the area it had to contribute additional funding to the project, upping its match by 190%. Even so, we had to find ways to economize. We were able to keep costs down and still implement a successful project by carefully studying the site to understand existing facilities and how they could be used to optimize the effectiveness of the BMPs. This careful site scrutiny also revealed unexpected opportunities to expand the project. COVID delays required patience and persistence.

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