



**Impervious Cover Reduction Action Plan
for
City of Bridgeton, Cumberland County, New Jersey**

*Prepared for City of Bridgeton by the
Rutgers Cooperative Extension Water Resources Program*

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Introduction

Located in Cumberland County in southern New Jersey, the City of Bridgeton is approximately 6 miles in size. Figures 1 and 2 illustrate that the City of Bridgeton is dominated by urban land uses. A total of 65.4% of the municipality's land use is classified as urban. Of the urban land in the City of Bridgeton, medium density residential is the dominant land use (Figure 3).

The New Jersey Department of Environmental Protection's (NJDEP) 2012 land use/land cover geographical information system (GIS) data layer categorizes the City of Bridgeton into many unique land use areas, assigning a percent impervious cover for each delineated area. These impervious cover values were used to estimate the impervious coverage for the City of Bridgeton. Based upon the 2012 NJDEP land use/land cover data, approximately 26.4% of the City of Bridgeton has impervious cover. This level of impervious cover suggests that the streams in the City of Bridgeton are likely non-supporting streams.¹

Methodology

The City of Bridgeton contains portions of three subwatersheds (Figure 4). For this impervious cover reduction action plan, projects have been identified in each of these watersheds. Initially, aerial imagery was used to identify potential project sites that contain extensive impervious cover. Field visits were then conducted at each of these potential project sites to determine if a viable option exists to reduce impervious cover or to disconnect impervious surfaces from draining directly to the local waterway or storm sewer system. During the site visit, appropriate green infrastructure practices for the site were determined. Sites that already had stormwater management practices in place were not considered.

¹ Caraco, D., R. Claytor, P. Hinkle, H. Kwon, T. Schueler, C. Swann, S. Vysotsky, and J. Zielinski. 1998. Rapid Watershed Planning Handbook. A Comprehensive Guide for Managing Urbanizing Watersheds. Prepared by Center For Watershed Protection, Ellicott City, MD. Prepared for U.S. Environmental Protection Agency, Office of Wetlands, Oceans and Watersheds and Region V. October 1998

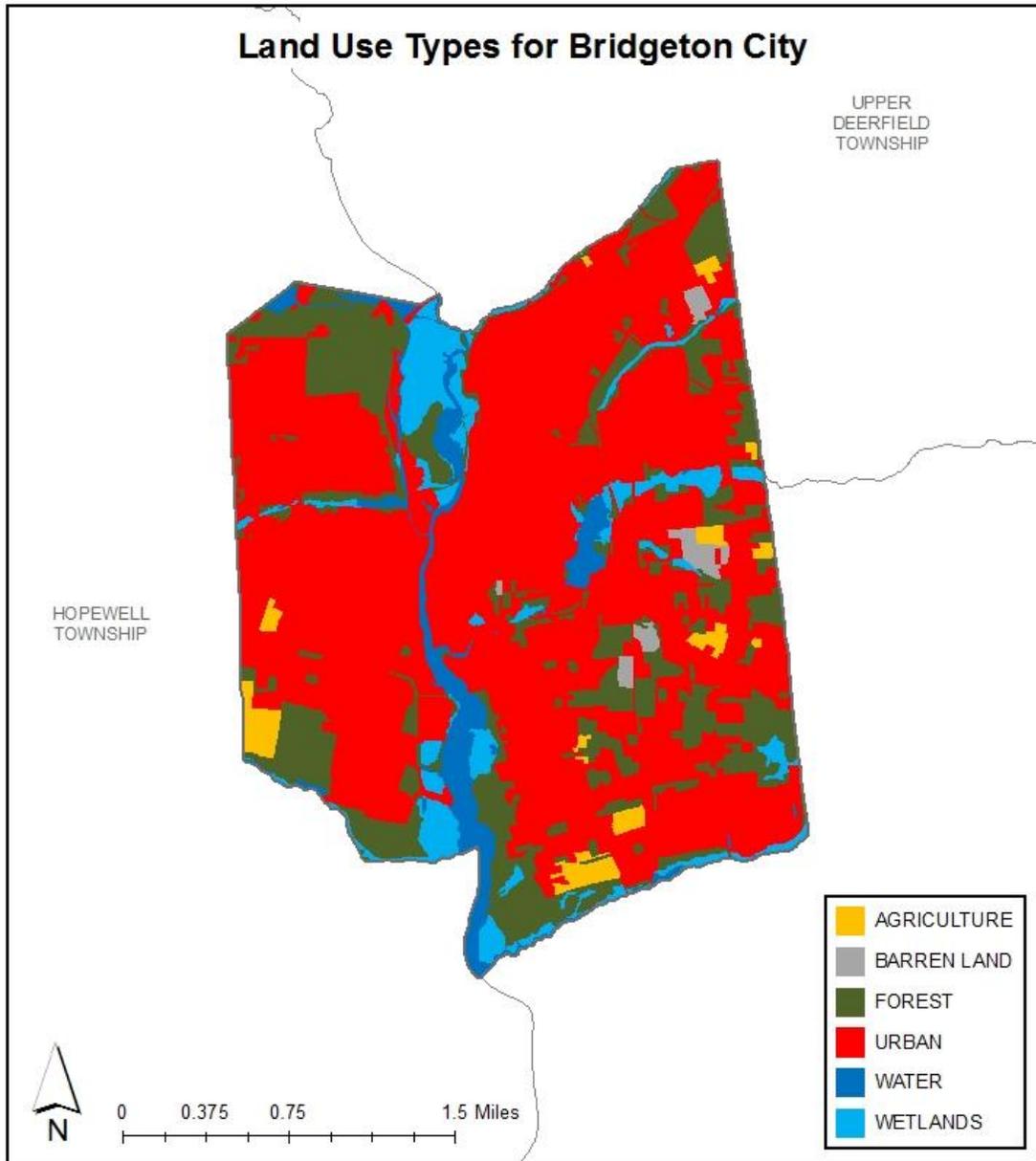


Figure 1: Map illustrating the land use in the City of Bridgeton

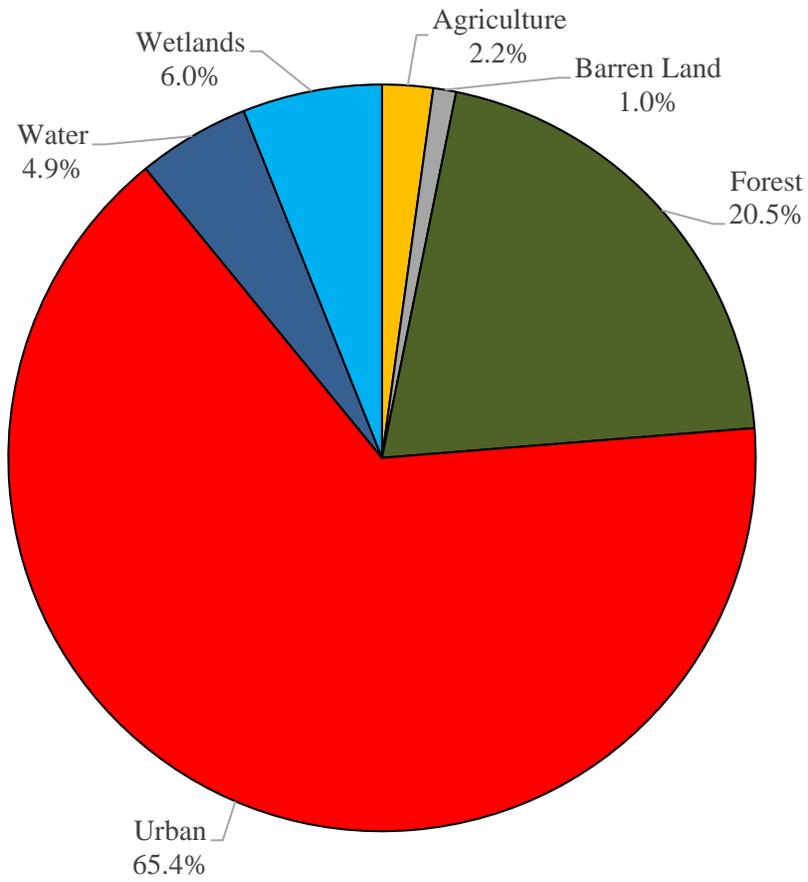


Figure 2: Pie chart illustrating the land use in the City of Bridgeton

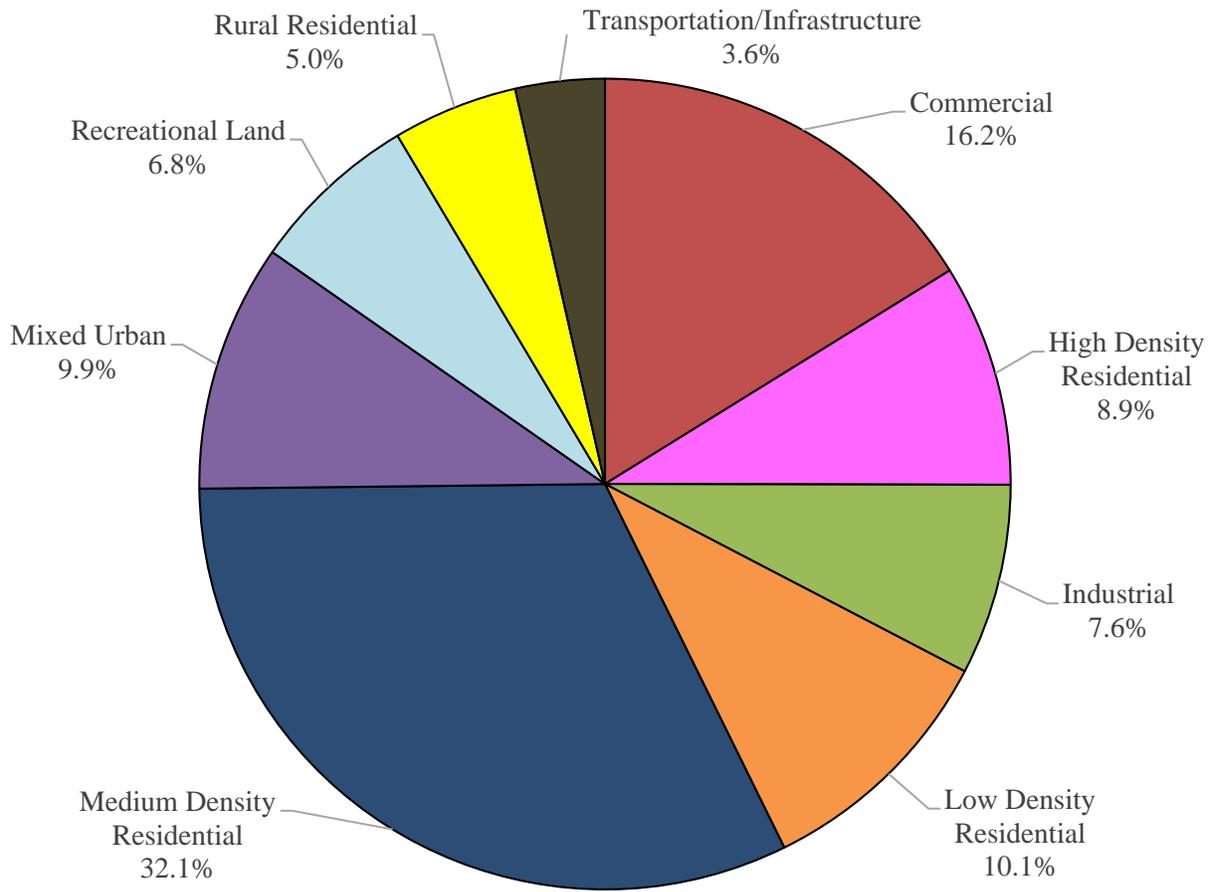


Figure 3: Pie chart illustrating the various types of urban land use in the City of Bridgeton

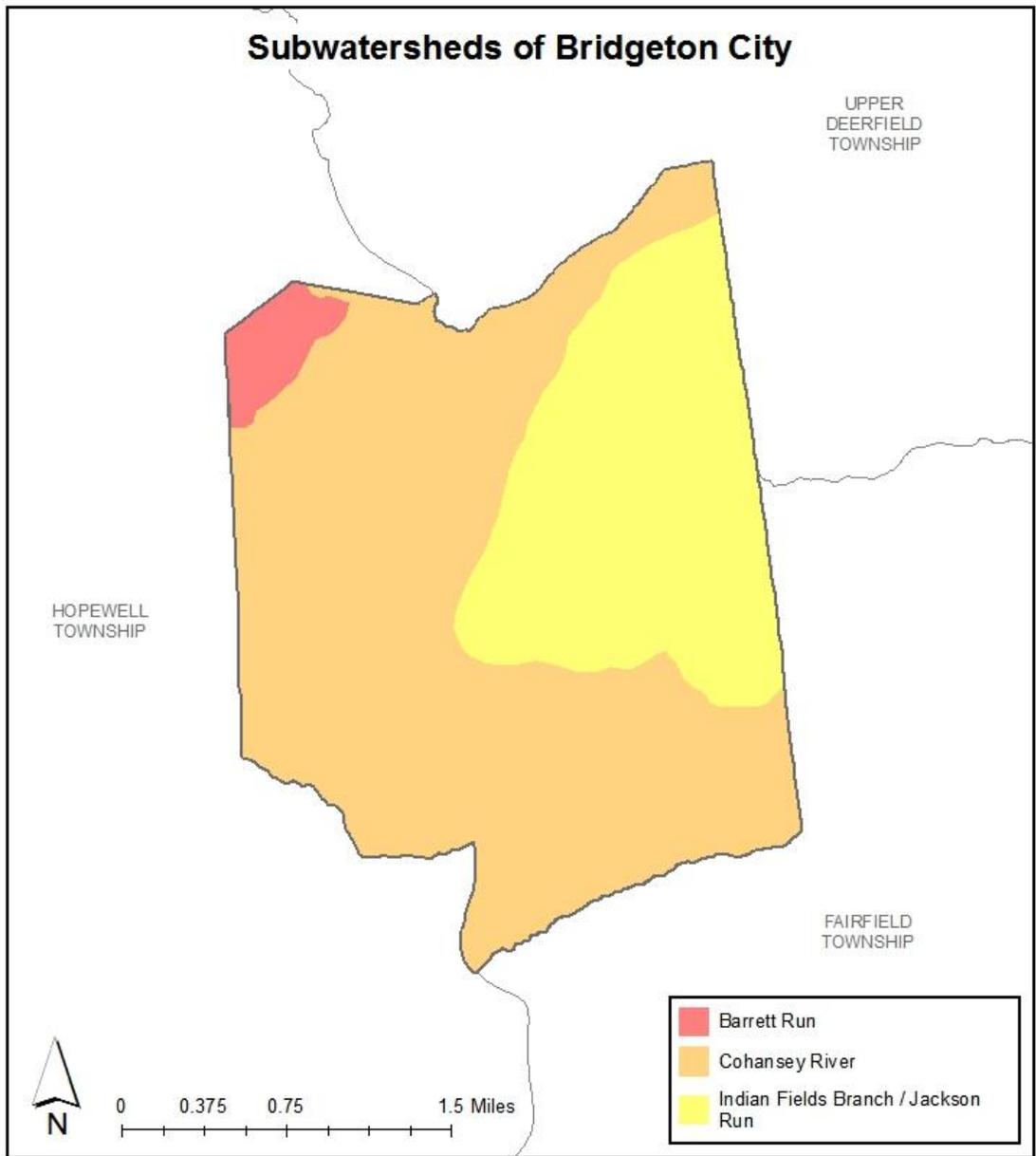


Figure 4: Map of the subwatersheds in the City of Bridgeton

For each potential project site, specific aerial loading coefficients for commercial land use were used to determine the annual runoff loads for total phosphorus (TP), total nitrogen (TN), and total suspended solids (TSS) from impervious surfaces (Table 1). These are the same aerial loading coefficients that NJDEP uses in developing total maximum daily loads (TMDLs) for impaired waterways of the state. The percentage of impervious cover for each site was extracted from the 2012 NJDEP land use/land cover database. For impervious areas, runoff volumes were determined for the water quality design storm (1.25 inches of rain over two-hours) and for the annual rainfall total of 44 inches.

Preliminary soil assessments were conducted for each potential project site identified in the City of Bridgeton using the United States Department of Agriculture Natural Resources Conservation Service Web Soil Survey, which utilizes regional and statewide soil data to predict soil types in an area. Several key soil parameters were examined (e.g., natural drainage class, saturated hydraulic conductivity of the most limiting soil layer (K_{sat}), depth to water table, and hydrologic soil group) to evaluate the suitability of each site's soil for green infrastructure practices. In cases where multiple soil types were encountered, the key soil parameters were examined for each soil type expected at a site.

For each potential project site, drainage areas were determined for each of the green infrastructure practices proposed at the site. These green infrastructure practices were designed to manage the 2-year design storm, enabling these practices to capture 95% of the annual rainfall. Runoff volumes were calculated for each proposed green infrastructure practice. The reduction in TSS loading was calculated for each drainage area for each proposed green infrastructure practice using the aerial loading coefficients in Table 1. The maximum volume reduction in stormwater runoff for each green infrastructure practice for a storm was determined by calculating the volume of runoff captured from the 2-year design storm. For each green infrastructure practice, peak discharge reduction potential was determined through hydrologic modeling in HydroCAD. For each green infrastructure practice, a cost estimate is provided. These costs are based upon the square footage of the green infrastructure practice and the real cost of green infrastructure practice implementation in New Jersey.

Table 1: Aerial Loading Coefficients²

Land Cover	TP load (lbs/acre/yr)	TN load (lbs/acre/yr)	TSS load (lbs/acre/yr)
High, Medium Density Residential	1.4	15	140
Low Density, Rural Residential	0.6	5	100
Commercial	2.1	22	200
Industrial	1.5	16	200
Urban, Mixed Urban, Other Urban	1.0	10	120
Agriculture	1.3	10	300
Forest, Water, Wetlands	0.1	3	40
Barrenland/Transitional Area	0.5	5	60

² New Jersey Department of Environmental Protection (NJDEP), Stormwater Best Management Practice Manual, 2004.

Green Infrastructure Practices

Green infrastructure is an approach to stormwater management that is cost-effective, sustainable, and environmentally friendly. Green infrastructure projects capture, filter, absorb, and reuse stormwater to maintain or mimic natural systems and to treat runoff as a resource. As a general principal, green infrastructure practices use soil and vegetation to recycle stormwater runoff through infiltration and evapotranspiration. When used as components of a stormwater management system, green infrastructure practices such as bioretention, green roofs, porous pavement, rain gardens, and vegetated swales can produce a variety of environmental benefits. In addition to effectively retaining and infiltrating rainfall, these practices can simultaneously help filter air pollutants, reduce energy demands, mitigate urban heat islands, and sequester carbon while also providing communities with aesthetic and natural resource benefits³. A wide range of green infrastructure practices have been evaluated for the potential project sites in the City of Bridgeton. Each practice is discussed below.

Disconnected downspouts

This is often referred to as simple disconnection. A downspout is simply disconnected, prevented from draining directly to the roadway or storm sewer system, and directed to discharge water to a pervious area (i.e., lawn).



Pervious pavements

There are several types of permeable pavement systems including porous asphalt, pervious concrete, permeable pavers, and grass pavers. These surfaces are hard and support vehicle traffic but also allow water to infiltrate through the surface. They have an underlying stone layer to store stormwater runoff and allow it to slowly seep into the ground.



³ United States Environmental Protection Agency (USEPA), 2013. Watershed Assessment, Tracking, and Environmental Results, New Jersey Water Quality Assessment Report. http://ofmpub.epa.gov/waters10/attains_state.control?p_state=NJ

Bioretention systems/rain gardens

These are landscaped features that are designed to capture, treat, and infiltrate stormwater runoff. These systems can easily be incorporated into existing landscapes, improving aesthetics and creating wildlife habitat while managing stormwater runoff. Bioretention systems also can be used in soils that do not quickly infiltrate by incorporating an underdrain into the system.



Downspout planter boxes

These are wooden boxes with plants installed at the base of a downspout that provide an opportunity to beneficially reuse rooftop runoff.



Rainwater harvesting systems (cistern or rain barrel)

These systems capture rainwater, mainly from rooftops, in cisterns or rain barrels. The water can then be used for watering gardens, washing vehicles, or for other non-potable uses.



Bioswale

Bioswales are landscape features that convey stormwater from one location to another while removing pollutants and providing water an opportunity to infiltrate.



Stormwater planters

Stormwater planters are vegetated structures that are built into the sidewalk to intercept stormwater runoff from the roadway or sidewalk. Many of these planters are designed to allow the water to infiltrate into the ground while others are designed simply to filter the water and convey it back into the stormwater sewer system.



Tree filter boxes

These are pre-manufactured concrete boxes that contain a special soil mix and are planted with a tree or shrub. They filter stormwater runoff but provide little storage capacity. They are typically designed to quickly filter stormwater and then discharge it to the local sewer system.



Potential Project Sites

Attachment 1 contains information on potential project sites where green infrastructure practices could be installed. The recommended green infrastructure practice and the drainage area that the green infrastructure practice can treat are identified for each potential project site. For each practice, the recharge potential, TSS removal potential, maximum volume reduction potential per storm, and the peak reduction potential are provided. This information is also provided so that proposed development projects that cannot satisfy the New Jersey stormwater management requirements for major development can use one of the identified projects to offset a stormwater management deficit.⁴

⁴ New Jersey Administrative Code, N.J.A.C. 7:8, Stormwater Management, Statutory Authority: N.J.S.A. 12:5-3, 13:1D-1 et seq., 13:9A-1 et seq., 13:19-1 et seq., 40:55D-93 to 99, 58:4-1 et seq., 58:10A-1 et seq., 58:11A-1 et seq. and 58:16A-50 et seq., *Date last amended: April 19, 2010.*

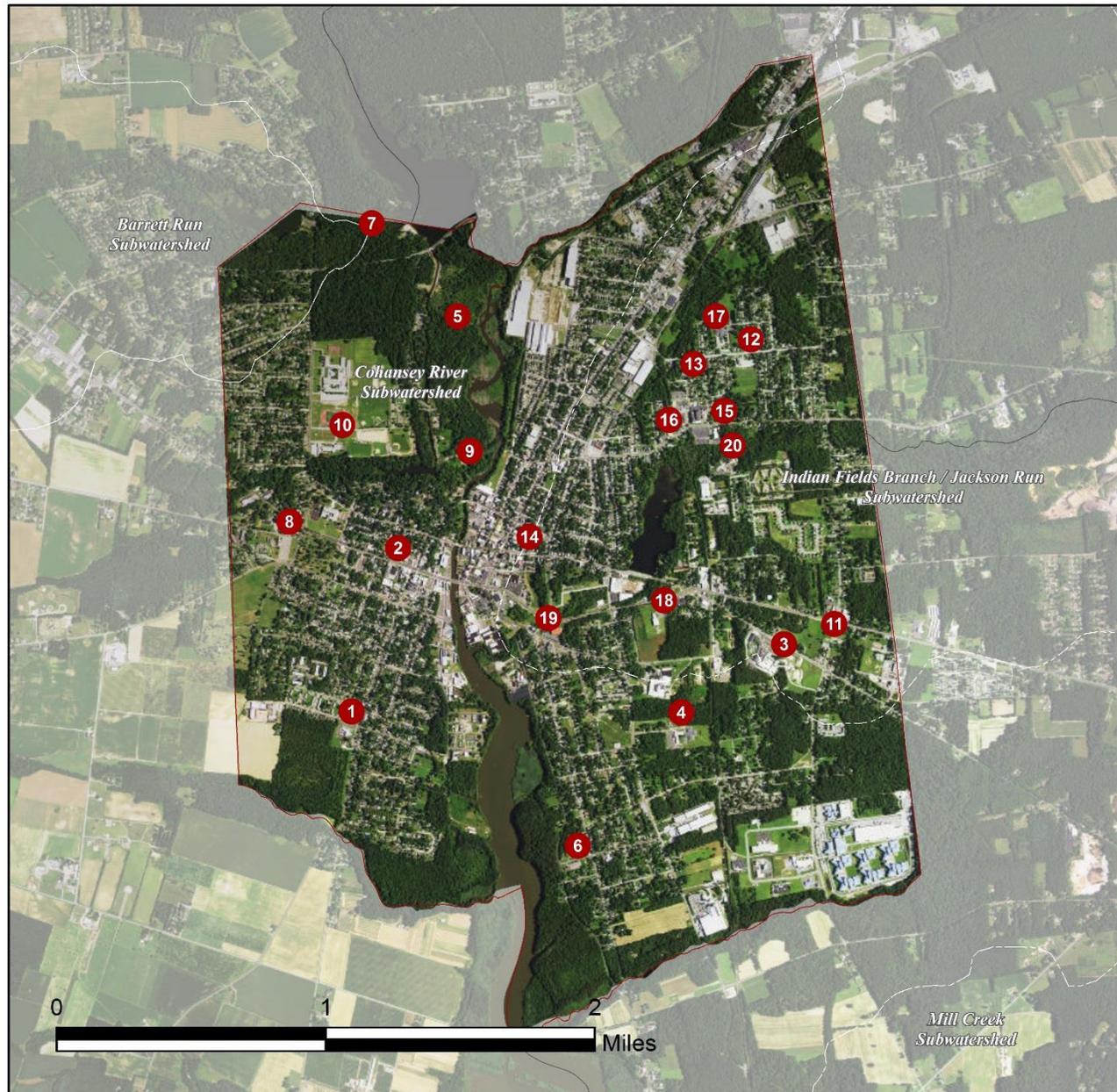
Conclusion

This impervious cover reduction action plan is meant to provide the municipality with a blueprint for implementing green infrastructure practices that will reduce the impact of stormwater runoff from impervious surfaces. These projects can be implemented by a wide variety of people such as boy scouts, girl scouts, school groups, faith-based groups, social groups, watershed groups, and other community groups.

Additionally, development projects that are in need of providing off-site compensation for stormwater impacts can use the projects in this plan as a starting point. The municipality can quickly convert this impervious cover reduction action plan into a stormwater mitigation plan and incorporate it into the municipal stormwater control ordinance.

a. Green Infrastructure Sites

BRIDGETON CITY: GREEN INFRASTRUCTURE SITES



SITES WITHIN THE COHANSEY RIVER SUBWATERSHED:

1. Bridgeton Police Department
2. Bridgeton Post Office
3. Buckshutem Road School
4. Cherry Street School
5. Cohanzick Zoo
6. John Wesley United Methodist Church
7. Sunset Lake
8. The Parish of the Holy Cross
9. Veterans Memorial Park
10. West Avenue School

SITES WITHIN THE INDIAN FIELDS BRANCH / JACKSON RUN SUBWATERSHED:

11. Bethany Seventh Day Adventist
12. Bridgeton Assembly of God
13. Bridgeton Chamber of Commerce
14. Bridgeton Library and Fire Department
15. Bridgeton Medical Arts Building
16. Community Health Care
17. Indian Avenue School
18. Rutgers Food Innovation Center
19. South Avenue and Willow Street Triangle
20. South Jersey Extended Care

b. Proposed Green Infrastructure Concepts

BRIDGETON POLICE DEPARTMENT



Subwatershed: Cohansey River
Site Area: 118,564 sq. ft.
Address: 330 Fayette Street
Bridgeton, NJ 08302
Block and Lot: Block 207, Lot 25



Installing rain gardens adjacent to the building and parking lot can capture, treat, and infiltrate runoff. A preliminary soil assessment suggests that the soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
68	80,498	3.9	40.7	369.6	0.063	2.21

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention systems	0.638	107	1,759	0.92	3,200	\$16,000

GREEN INFRASTRUCTURE RECOMMENDATIONS



Bridgeton Police Department

-  bioretention system
-  drainage area
-  property line
-  2015 Aerial: NJOIT, OGIS



BRIDGETON POST OFFICE



Subwatershed: Cohansey River

Site Area: 68,538 sq. ft.

Address: 102 Broad Street
Bridgeton, NJ 08302

Block and Lot: Block 259, Lot 5, 6



Installing a rain garden adjacent to the north side of the building can capture, treat, and infiltrate roof runoff. Parking spaces can be replaced with porous asphalt to infiltrate stormwater. A preliminary soil assessment suggests that the soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
95	65,112	3.1	32.9	299.0	0.051	1.79

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention system	0.034	6	2,469	0.09	325	\$1,625
Pervious pavement	0.285	48	20,887	0.79	1,950	\$48,750

GREEN INFRASTRUCTURE RECOMMENDATIONS



Bridgeton Post Office

-  bioretention system
-  pervious pavement
-  drainage area
-  property line
-  2015 Aerial: NJOIT, OGIS



BUCKSHUTEM ROAD SCHOOL



Subwatershed: Cohansey River

Site Area: 1,172,200 sq. ft.

Address: 550 Buckshutem Road
Bridgeton, NJ 08302

Block and Lot: Block 173, Lot 61

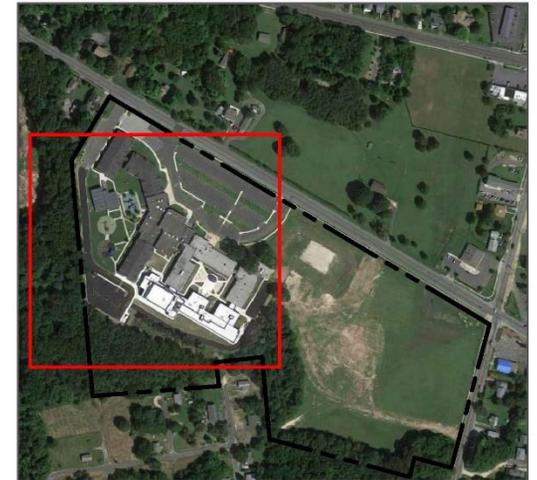
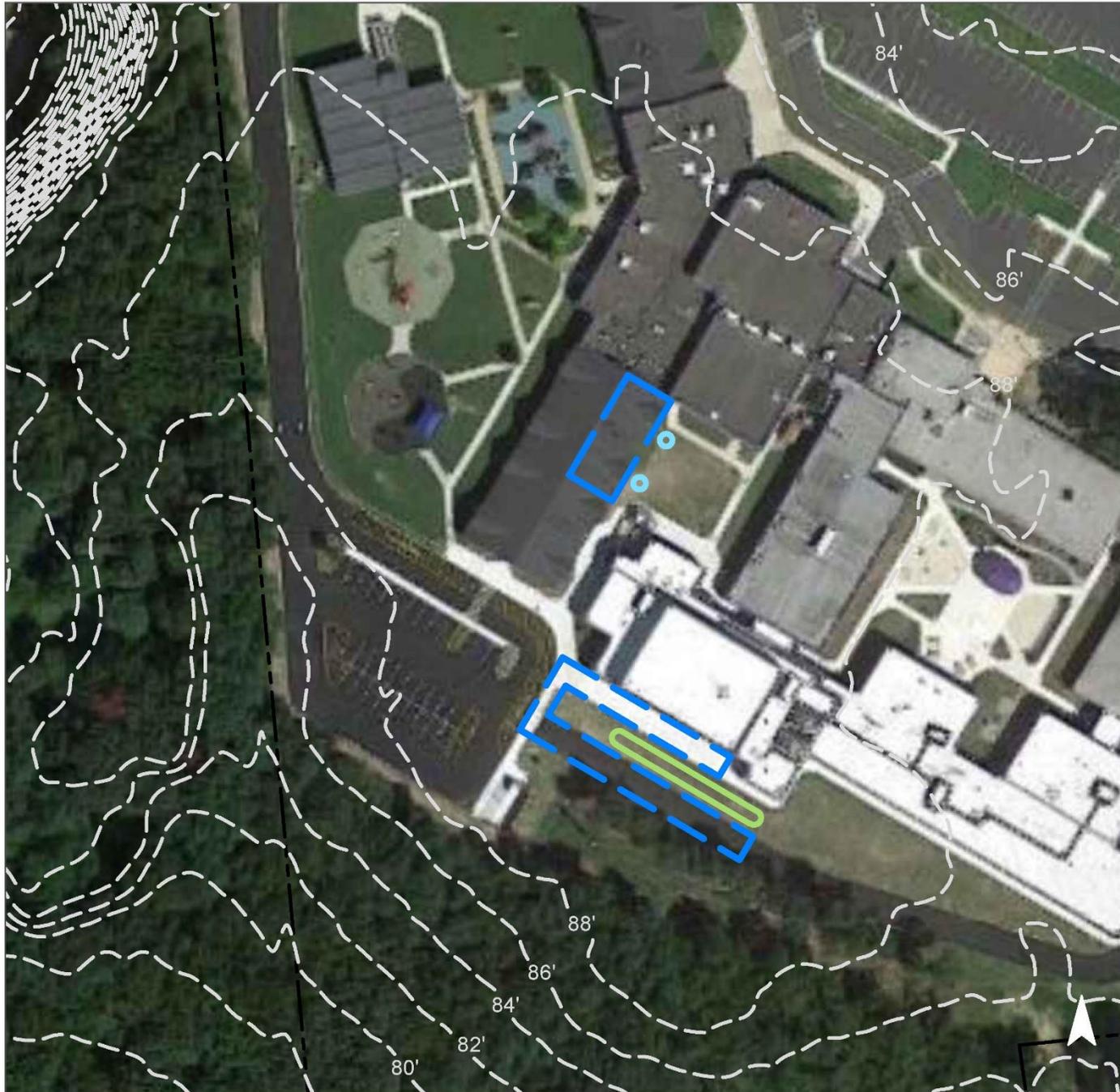


Installing a bioswale adjacent to the sidewalk can capture, treat, and infiltrate stormwater runoff. Rainwater can be harvested by installing cisterns in the courtyard of the building to capture roof runoff. Harvested rainwater can be used for watering plants. A preliminary soil assessment suggests that the soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
26	304,492	14.7	153.8	1398.0	0.237	8.35

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioswale	0.130	22	9,560	0.36	1,000	\$5,000
Rainwater harvesting	0.063	11	4,645	0.17	2,000 (gal)	\$4,000

GREEN INFRASTRUCTURE RECOMMENDATIONS



Buckshutem Road School

-  bioswale
-  rainwater harvesting
-  drainage area
-  property line
-  2015 Aerial: NJOIT, OGIS



CHERRY STREET SCHOOL



Subwatershed: Cohansey River

Site Area: 443,606 sq. ft.

Address: 20 Cherry Street
Bridgeton, NJ 08302

Block and Lot: Block 171, Lot 34

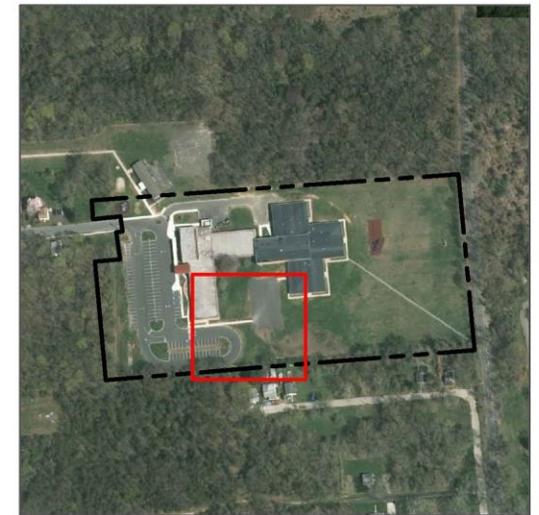


Installing a rain garden adjacent to the parking lot can capture, treat, and infiltrate stormwater runoff. An asphalt play area can be replaced with pervious pavement to capture and infiltrate stormwater. A preliminary soil assessment suggests that the soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
34	152,482	7.4	77.0	700.1	0.119	4.18

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention system	0.136	23	9,971	0.37	1,304	\$6,520
Pervious pavement	0.263	44	19,298	0.73	1,803	\$45,075

GREEN INFRASTRUCTURE RECOMMENDATIONS



Cherry Street School

-  bioretention system
-  pervious pavement
-  drainage area
-  property line
-  2015 Aerial: NJOIT, OGIS



COHANZICK ZOO



Subwatershed: Cohansey River

Site Area: 5,126,561 sq. ft.

Address: 45 Mayor Aitken Drive
Bridgeton, NJ 08302

Block and Lot: Block 280, Lot 1



Installing a rain garden adjacent to the parking lot can capture, treat, and infiltrate stormwater runoff. A preliminary soil assessment suggests that the soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
3	129,407	6.2	65.4	594.2	0.101	3.55

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention system	0.040	7	2,917	0.11	295	\$1,475

GREEN INFRASTRUCTURE RECOMMENDATIONS



Cohanzick Zoo

-  bioretention system
-  drainage area
-  property line
-  2015 Aerial: NJOIT, OGIS



JOHN WESLEY UNITED METHODIST CHURCH



Subwatershed: Cohanse River

Site Area: 53,608 sq. ft.

Address: 90 Baltimore Avenue
Bridgeton, NJ 08302

Block and Lot: Block 166, Lot 1

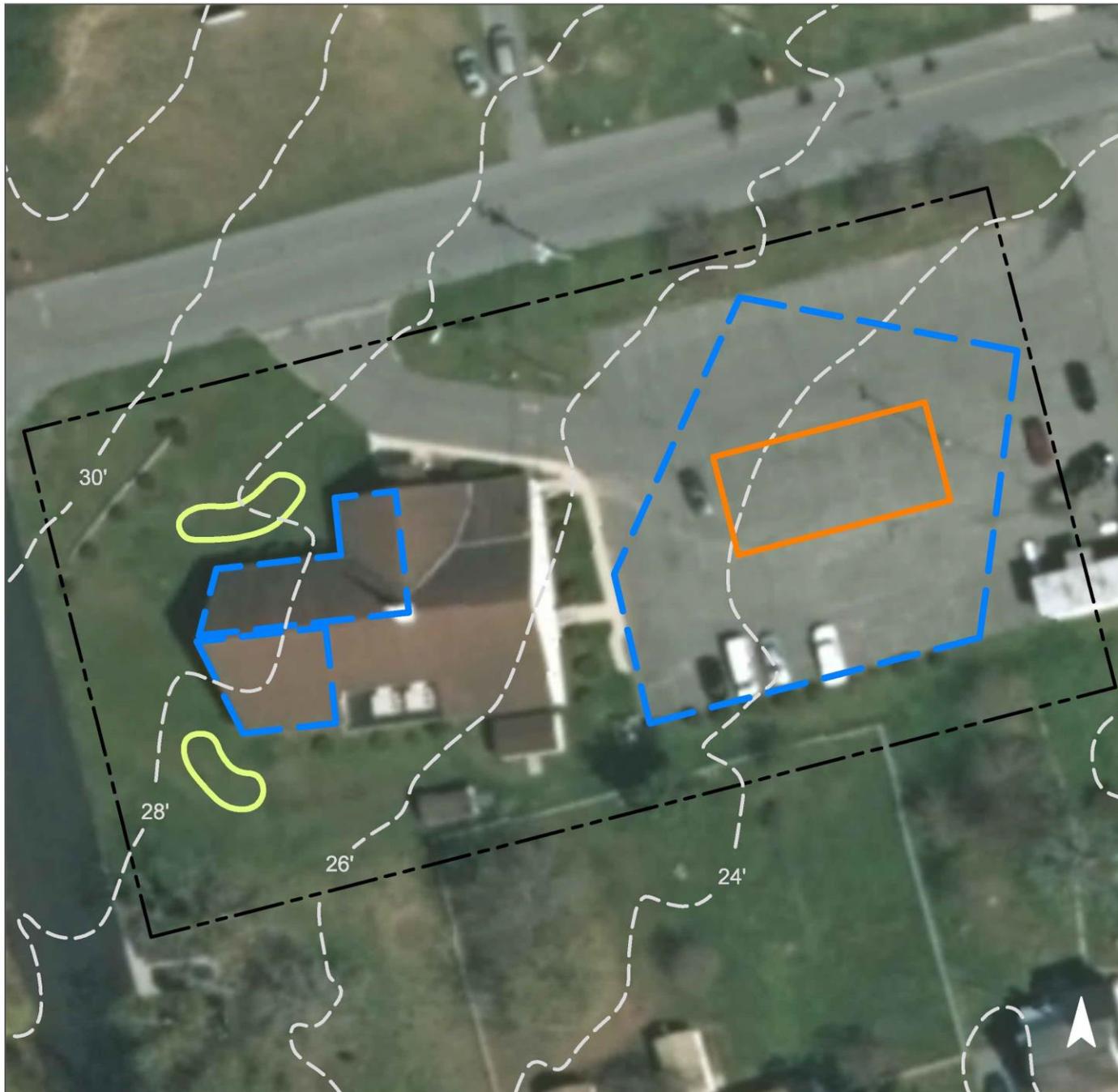


Installing rain gardens northwest and southwest of the building can capture, treat, and infiltrate roof runoff. Parking spaces can be replaced with porous asphalt to infiltrate stormwater. A preliminary soil assessment suggests that the soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
58	30,985	1.5	15.6	142.3	0.024	0.85

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention systems	0.073	12	5,394	0.20	705	\$3,525
Pervious pavement	0.330	55	24,216	0.91	2,260	\$56,500

GREEN INFRASTRUCTURE RECOMMENDATIONS



John Wesley United Methodist Church

-  bioretention system
-  pervious pavement
-  drainage area
-  property line
-  2015 Aerial: NJOIT, OGIS



SUNSET LAKE



Subwatershed: Cohansey River
Site Area: 1,437,939 sq. ft.
Address: 66 West Park Drive
Bridgeton, NJ 08302
Block and Lot: Block 282, Lot 2



Installing a rain garden adjacent to the parking lot can capture, treat, and infiltrate stormwater runoff. A preliminary soil assessment suggests that the soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
3	47,606	2.3	24.0	218.6	0.037	1.31

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention system	0.068	11	4,975	0.19	650	\$3,250

GREEN INFRASTRUCTURE RECOMMENDATIONS



Sunset Lake

-  bioretention system
-  drainage area
-  property line
-  2015 Aerial: NJOIT, OGIS



THE PARISH OF THE HOLY CROSS



Subwatershed: Cohansey River

Site Area: 263,987 sq. ft.

Address: 46 Central Avenue
Bridgeton, NJ 08302

Block and Lot: Block 251, Lot 9



Installing rain gardens adjacent to the church can capture, treat, and infiltrate roof runoff. Parking spaces in both of the parking lots surrounding the building can be replaced with porous asphalt to infiltrate stormwater. A preliminary soil assessment suggests that the soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
46	121,943	5.9	61.6	559.9	0.095	3.34

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention systems	0.030	5	2,199	0.08	290	\$1,450
Pervious pavement	1,896	317	139,147	5.23	12,995	\$324,875

GREEN INFRASTRUCTURE RECOMMENDATIONS



The Parish of the Holy Cross

-  bioretention system
-  pervious pavement
-  drainage area
-  property line
-  2015 Aerial: NJOIT, OGIS



VETERANS MEMORIAL PARK



Subwatershed: Cohansey River

Site Area: 454,972 sq. ft.

Address: 15 Mayor Aitken Drive
Bridgeton, NJ 08302

Block and Lot: Block 279, Lot 1



Installing a rain garden adjacent to the parking lot can capture, treat, and infiltrate stormwater runoff. A preliminary soil assessment suggests that more soil testing would be required before determining the soil's suitability for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
15	66,784	3.2	33.7	306.6	0.052	1.83

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention system	0.021	3	1,526	0.06	200	\$1,000

GREEN INFRASTRUCTURE RECOMMENDATIONS



Veterans Memorial Park

-  bioretention system
-  drainage area
-  property line
-  2015 Aerial: NJOIT, OGIS



WEST AVENUE SCHOOL



Subwatershed: Cohansey River

Site Area: 569,687 sq. ft.

Address: 51 West Avenue North
Bridgeton, NJ 08302

Block and Lot: Block 285, Lot 1



Installing a bioswale adjacent to the roadway can capture, treat, and infiltrate stormwater runoff. A preliminary soil assessment suggests that the soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
31	175,433	8.5	88.6	805.5	0.137	4.81

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioswale	0.208	35	15,297	0.57	2,000	\$10,000

GREEN INFRASTRUCTURE RECOMMENDATIONS



West Avenue School

-  bioswale
-  drainage area
-  property line
-  2015 Aerial: NJOIT, OGIS



BETHANY SEVENTH DAY ADVENTIST



Subwatershed: Indian Fields Branch / Jackson Run

Site Area: 21,881 sq. ft.

Address: 32 South Burlington Road
Bridgeton, NJ 08302

Block and Lot: Block 172, Lot 30, 31



Installing a rain garden adjacent to the building can capture, treat, and infiltrate roof runoff. Parking spaces can be replaced with porous asphalt to infiltrate stormwater. A preliminary soil assessment suggests that the soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
30	6,562	0.3	3.3	30.1	0.005	0.18

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention system	0.022	4	1,593	0.06	210	\$1,050
Pervious pavement	0.063	11	4,638	0.17	435	\$10,875

GREEN INFRASTRUCTURE RECOMMENDATIONS



Bethany Seventh Day Adventist

-  bioretention system
-  pervious pavement
-  drainage area
-  property line
-  2015 Aerial: NJOIT, OGIS



BRIDGETON ASSEMBLY OF GOD



Subwatershed: Indian Fields Branch / Jackson Run

Site Area: 146,276 sq. ft.

Address: 424 Indian Avenue
Bridgeton, NJ 08302

Block and Lot: Block 35, Lot 2



Rain gardens adjacent to the parking lot and the northwest side of the building can capture, treat, and infiltrate roof runoff. A preliminary soil assessment suggests that the soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
48	70,177	3.4	35.4	322.2	0.055	1.92

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention systems	0.475	79	34,832	1.31	4,555	\$22,775

GREEN INFRASTRUCTURE RECOMMENDATIONS



Bridgeton Assembly of God

-  bioretention system
-  drainage area
-  property line
-  2015 Aerial: NJOIT, OGIS



BRIDGETON CHAMBER OF COMMERCE



Subwatershed: Indian Fields Branch / Jackson Run

Site Area: 14,582 sq. ft.

Address: 76 Magnolia Avenue
Bridgeton, NJ 08302

Block and Lot: Block 41, Lot 4

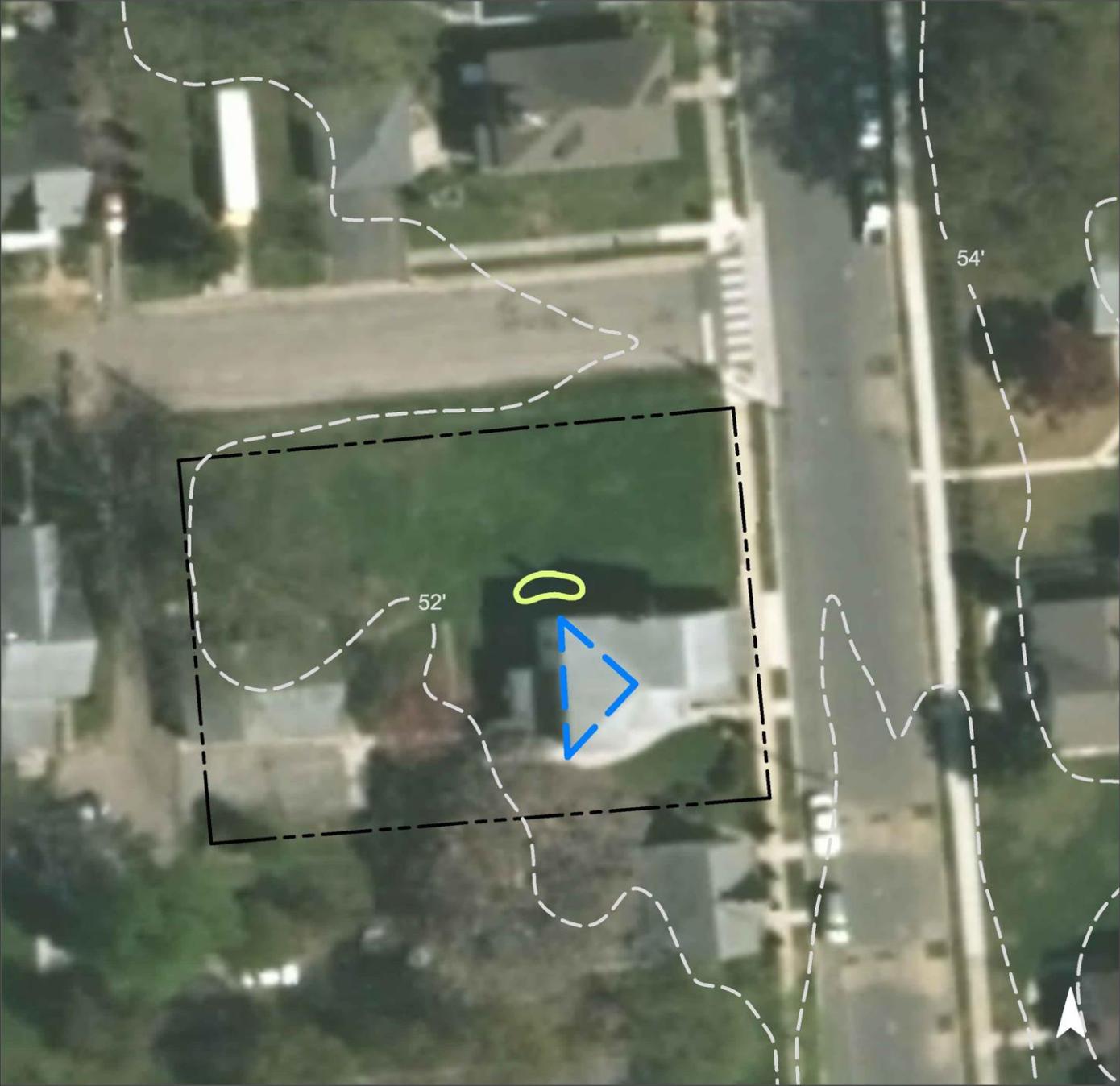


Installing a rain garden adjacent to the northwest corner of the building can capture, treat, and infiltrate roof runoff. A preliminary soil assessment suggests that the soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
35	5,104	0.2	2.6	23.4	0.004	0.14

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention system	0.009	1	643	0.02	85	\$425

GREEN INFRASTRUCTURE RECOMMENDATIONS



Bridgeton Chamber of Commerce

-  bioretention system
-  drainage area
-  property line
-  2015 Aerial: NJOIT, OGIS



BRIDGETON LIBRARY AND FIRE DEPARTMENT



Subwatershed: Indian Fields Branch / Jackson Run

Site Area: 50,150 sq. ft.

Address: 150 East Commerce Street
Bridgeton, NJ 08302

Block and Lot: Block 121.01, Lot 1, 2

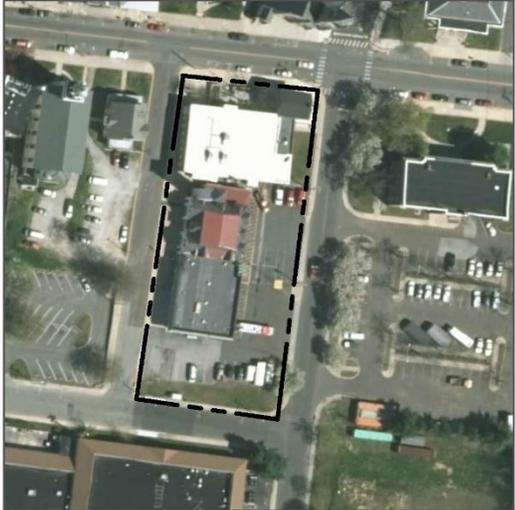
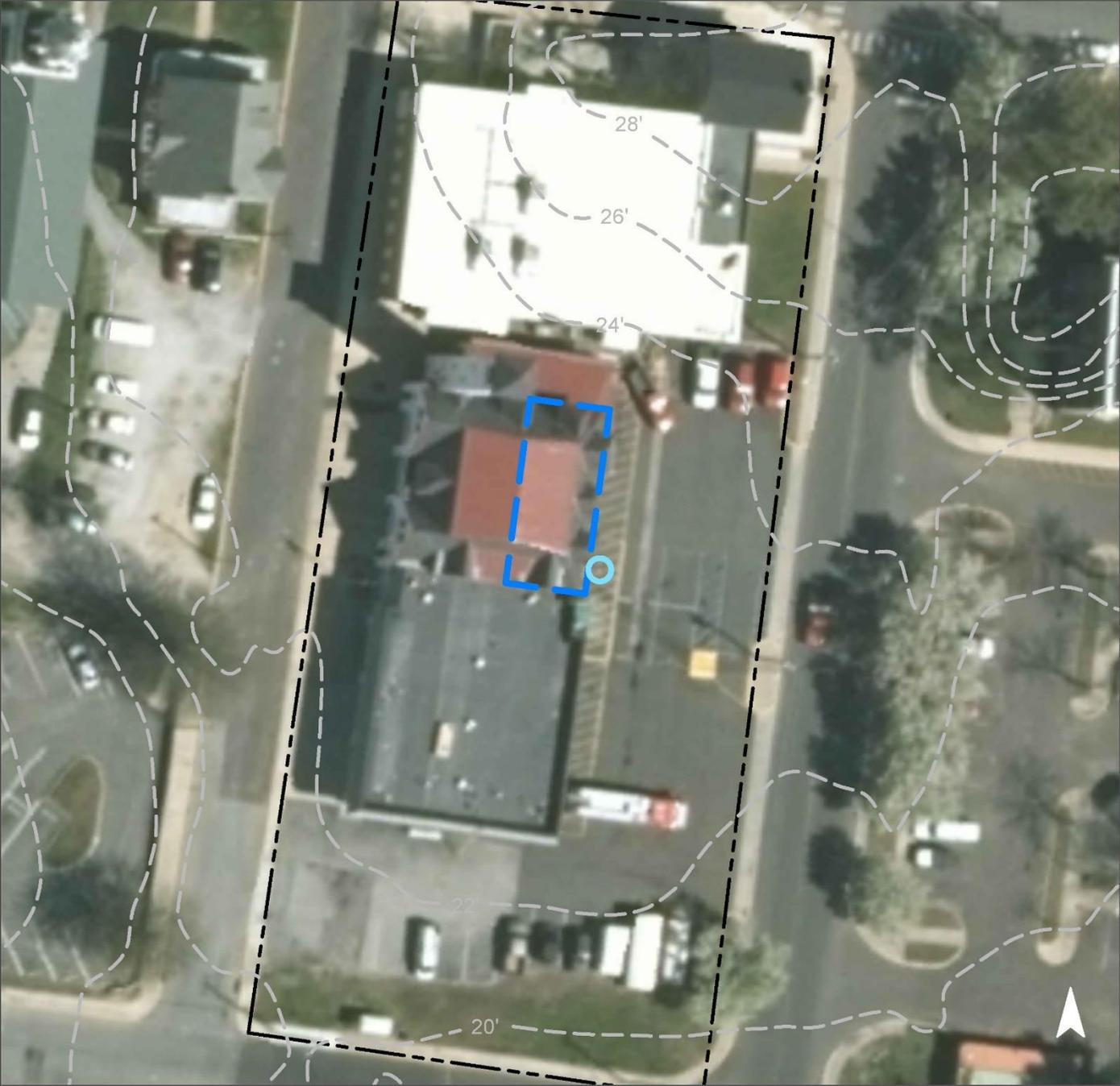


Rainwater can be harvested by installing a cistern at the southwest corner of the building for washing trucks. A preliminary soil assessment suggests that the soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
90	45,135	2.2	22.8	207.2	0.035	1.24

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Rainwater harvesting	0.041	7	3,000	0.11	1,225 (gal)	\$2,450

GREEN INFRASTRUCTURE RECOMMENDATIONS



Bridgeton Library and Fire Department

-  rainwater harvesting
-  drainage area
-  property line
-  2015 Aerial: NJOIT, OGIS



BRIDGETON MEDICAL ARTS BUILDING



Subwatershed: Indian Fields Branch / Jackson Run

Site Area: 98,842 sq. ft.

Address: 105 Manheim Avenue, #1
Bridgeton, NJ 08302

Block and Lot: Block 106, Lot 1



Installing a rain garden adjacent to the northwest corner of the building can capture, treat, and infiltrate roof runoff. Parking spaces can be replaced with porous asphalt to infiltrate stormwater. A preliminary soil assessment suggests that the soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
60	59,493	2.9	30.0	273.2	0.046	1.63

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention system	0.034	6	2,469	0.09	325	\$1,625
Pervious pavement	0.810	136	59,429	2.23	5,550	\$138,750

GREEN INFRASTRUCTURE RECOMMENDATIONS



Bridgeton Medical Arts Building

-  bioretention system
-  pervious pavement
-  drainage area
-  property line
-  2015 Aerial: NJOIT, OGIS



COMMUNITY HEALTH CARE



Subwatershed: Indian Fields Branch / Jackson Run

Site Area: 26,517 sq. ft.

Address: 265 Irving Avenue
Bridgeton, NJ 08302

Block and Lot: Block 45, Lot 14



Installing a rain garden adjacent to the building can capture, treat, and infiltrate roof runoff. Parking spaces can be replaced with porous asphalt to infiltrate stormwater. A preliminary soil assessment suggests that the soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
65	17,236	0.8	8.7	79.1	0.013	0.47

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention system	0.017	3	1,212	0.05	160	\$800
Pervious pavement	0.078	13	5,701	0.21	535	\$13,375

GREEN INFRASTRUCTURE RECOMMENDATIONS



Community Health Care

-  bioretention system
-  pervious pavement
-  drainage area
-  property line
-  2015 Aerial: NJOIT, OGIS



INDIAN AVENUE SCHOOL



Subwatershed: Indian Fields Branch / Jackson Run

Site Area: 529,065 sq. ft.

Address: 399 Indian Avenue
Bridgeton, NJ 08302

Block and Lot: Block 17, Lot 63

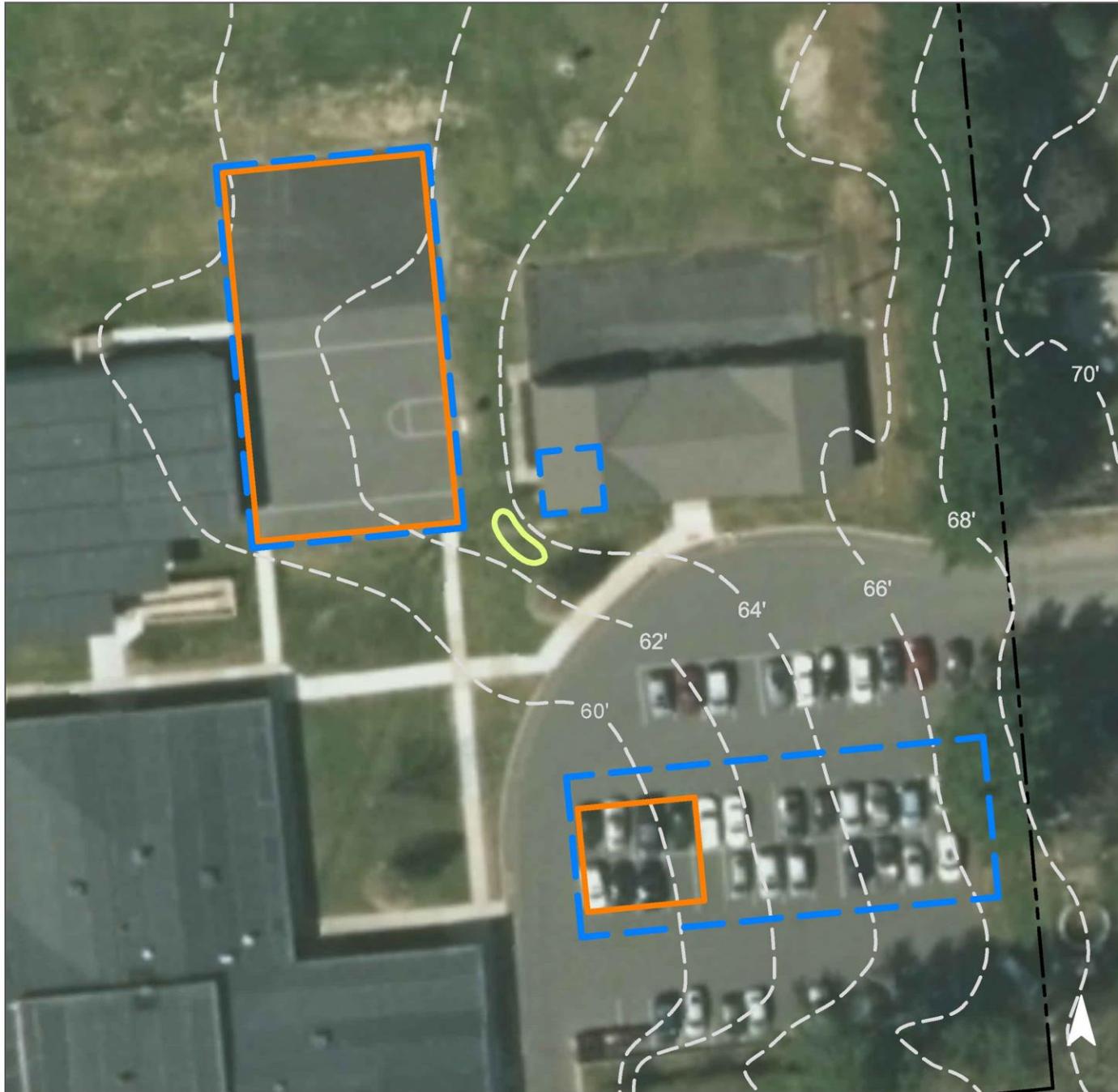


Installing a rain garden adjacent to the building can capture, treat, and infiltrate roof runoff. Parking spaces can be replaced with porous asphalt to infiltrate stormwater. A preliminary soil assessment suggests that the soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
32	170,888	8.2	86.3	784.6	0.133	4.69

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention system	0.010	2	763	0.03	100	\$500
Pervious pavement	0.404	68	29,677	1.12	2,770	\$69,250

GREEN INFRASTRUCTURE RECOMMENDATIONS



Indian Avenue School

-  bioretention system
-  pervious pavement
-  drainage area
-  property line
-  2015 Aerial: NJOIT, OGIS



RUTGERS FOOD INNOVATION CENTER



Subwatershed: Indian Fields Branch / Jackson Run

Site Area: 254,115 sq. ft.

Address: 450 East Broad Street
Bridgeton, NJ 08302

Block and Lot: Block 170, Lot 8.01

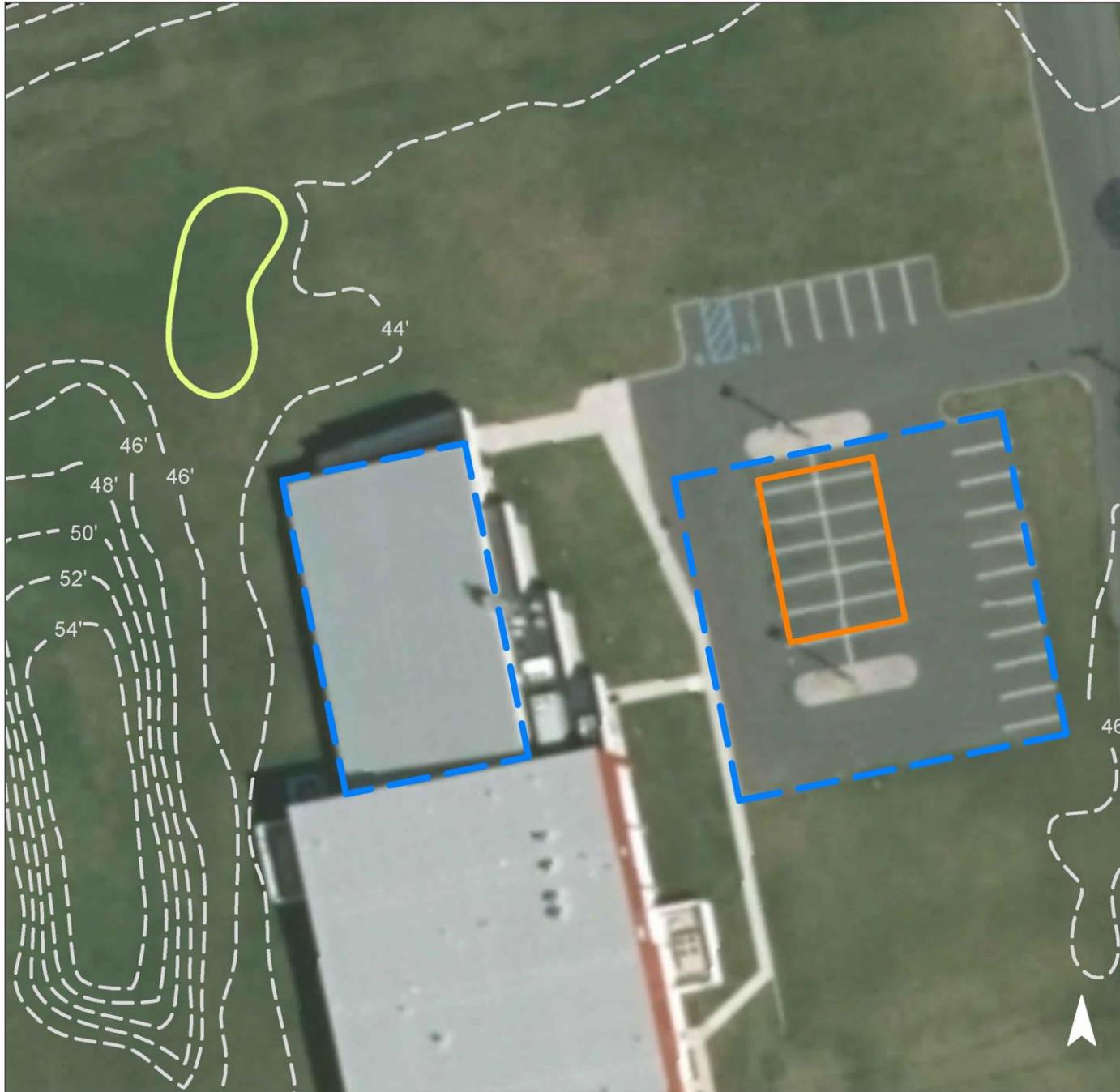


Installing a rain garden adjacent to the building can capture, treat, and infiltrate roof runoff. Parking spaces can be replaced with porous asphalt to infiltrate stormwater. A preliminary soil assessment suggests that the soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
26	66,851	3.2	33.8	306.9	0.052	1.83

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention system	0.162	27	11,872	0.45	1,555	\$7,775
Pervious pavement	0.297	50	21,830	0.82	2,040	\$51,000

GREEN INFRASTRUCTURE RECOMMENDATIONS



Rutgers Food Innovation Center

-  bioretention system
-  pervious pavement
-  drainage area
-  property line
-  2015 Aerial: NJOIT, OGIS



SOUTH AVENUE AND WILLOW STREET TRIANGLE



Subwatershed: Indian Fields Branch / Jackson Run

Site Area: 7,899 sq. ft.

Address: South Avenue and Willow Street
Bridgeton, NJ 08302

Block and Lot: Block 134, Lot 1, 2, 2.01, 3

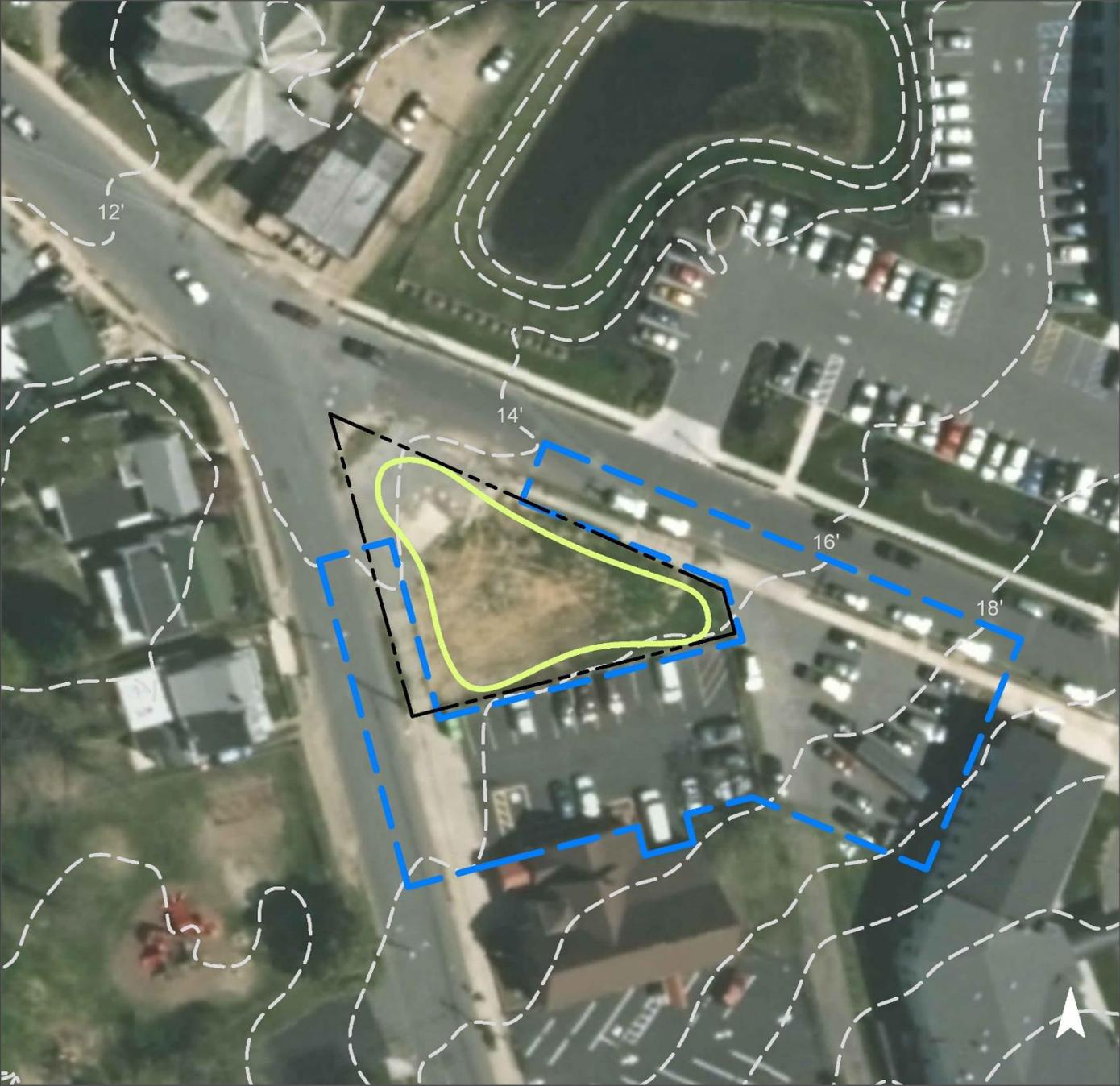


Installing a rain garden adjacent to the roadway can capture, treat, and infiltrate stormwater runoff. A preliminary soil assessment suggests that the soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
80	6,319	0.3	3.2	29.0	0.005	0.17

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention system	0.586	98	43,020	1.62	5,625	\$28,125

GREEN INFRASTRUCTURE RECOMMENDATIONS



South Avenue and Willow Street Triangle

-  bioretention system
-  drainage area
-  property line
-  2015 Aerial: NJOIT, OGIS



SOUTH JERSEY EXTENDED CARE



Subwatershed: Indian Fields Branch / Jackson Run

Site Area: 298,773 sq. ft.

Address: 99 Manheim Avenue
Bridgeton, NJ 08302

Block and Lot: Block 106, Lot 12



Installing a rain garden adjacent to the building can capture, treat, and infiltrate roof runoff. Parking spaces can be replaced with porous asphalt to infiltrate stormwater. A preliminary soil assessment suggests that the soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
42	126,057	6.1	63.7	578.8	0.098	3.46

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention system	0.133	22	9,755	0.37	1,275	\$6,375
Pervious pavement	0.446	75	32,699	1.23	3,055	\$76,375

GREEN INFRASTRUCTURE RECOMMENDATIONS



South Jersey Extended Care

-  bioretention system
-  pervious pavement
-  drainage area
-  property line
-  2015 Aerial: NJOIT, OGIS



c. Summary of Existing Conditions

Summary of Existing Site Conditions

Subwatershed/Site Name/Total Site Info/GI Practice	Area (ac)	Area (SF)	Block	Lot	Existing Annual Loads			I.C. %	I.C. Area (ac)	I.C. Area (SF)	Runoff Volumes from I.C.	
					TP (lb/yr)	TN (lb/yr)	TSS (lb/yr)				Water Quality Storm (1.25" over 2-hours) (Mgal)	Annual (Mgal)
COHANSEY RIVER SUBWATERSHED	222.90	9,709,664			56.6	593.3	5,393.7	18.45	1,174,741	0.915	32.22	
Bridgeton Police Department												
Total Site Info	2.72	118,564	207	25	3.9	40.7	369.6	68	1.85	80,498	0.063	2.21
Bridgeton Post Office												
Total Site Info	1.57	68,538	259	5, 6	3.1	32.9	299.0	95	1.49	65,112	0.051	1.79
Buckshutem Road School												
Total Site Info	26.91	1,172,200	173	61	14.7	153.8	1,398.0	26	6.99	304,492	0.237	8.35
Cherry Street School												
Total Site Info	10.18	443,606	171	34	7.4	77.0	700.1	34	3.50	152,482	0.119	4.18
Cohanzick Zoo												
Total Site Info	117.69	5,126,561	280	1	6.2	65.4	594.2	3	2.97	129,407	0.101	3.55
John Wesley United Methodist Church												
Total Site Info	1.23	53,608	166	1	1.5	15.6	142.3	58	0.71	30,985	0.024	0.85
Sunset Lake												
Total Site Info	33.01	1,437,939	282	2	2.3	24.0	218.6	3	1.09	47,606	0.037	1.31
The Parish of the Holy Cross												
Total Site Info	6.06	263,987	251	9	5.9	61.6	559.9	46	2.80	121,943	0.095	3.34
Veterans Memorial Park												
Total Site Info	10.44	454,972	279	1	3.2	33.7	306.6	15	1.53	66,784	0.052	1.83
West Avenue School												
Total Site Info	13.08	569,687	285	1	8.5	88.6	805.5	31	4.03	175,433	0.137	4.81

Summary of Existing Site Conditions

Subwatershed/Site Name/Total Site Info/GI Practice	Area (ac)	Area (SF)	Block	Lot	Existing Annual Loads			I.C. %	I.C. Area (ac)	I.C. Area (SF)	Runoff Volumes from I.C.	
					TP (lb/yr)	TN (lb/yr)	TSS (lb/yr)				Water Quality Storm (1.25" over 2-hours) (Mgal)	Annual (Mgal)
INDIAN FIELDS BRANCH / JACKSON RUN SUBWATERSHED	33.24	1,448,099			27.7	289.8	2,634.6	13.03	573,821	0.447	15.74	
Bethany Seventh Day Adventist Total Site Info	0.50	21,881	172	30, 31	0.3	3.3	30.1	30	0.15	6,562	0.005	0.18
Bridgeton Assembly of God Total Site Info	3.36	146,276	35	2	3.4	35.4	322.2	48	1.61	70,177	0.055	1.92
Bridgeton Chamber of Commerce Total Site Info	0.33	14,582	41	4	0.2	2.6	23.4	35	0.12	5,104	0.004	0.14
Bridgeton Library and Fire Department Total Site Info	1.15	50,150	121.01	1, 2	2.2	22.8	207.2	90	1.04	45,135	0.035	1.24
Bridgeton Medical Arts Building Total Site Info	2.27	98,842	106	1	2.9	30.0	273.2	60	1.37	59,493	0.046	1.63
Community Health Care Total Site Info	0.61	26,517	45	14	0.8	8.7	79.1	65	0.40	17,236	0.013	0.47
Indian Avenue School Total Site Info	12.15	529,065	17	63	8.2	86.3	784.6	32	3.92	170,888	0.133	4.69
Rutgers Food Innovation Center Total Site Info	5.83	254,115	170	8.01	3.2	33.8	306.9	26	1.53	66,851	0.052	1.83
South Avenue and Willow Street Triangle Total Site Info	0.18	7,899	134	1, 2, 2.01, 3	0.3	3.2	29.0	80	0.15	6,319	0.005	0.17
South Jersey Extended Care Total Site Info	6.86	298,773	106	12	6.1	63.7	578.8	42	2.89	126,057	0.098	3.46

d. Summary of Proposed Green Infrastructure Practices

Summary of Proposed Green Infrastructure Practices

Subwatershed/Site Name/Total Site Info/GI Practice	Potential Management Area		Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Max Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cfs)	Size of BMP (SF)	Unit Cost (\$)	Unit	Total Cost (\$)	I.C. Treated %
	Area (SF)	Area (ac)									
COHANSEY RIVER SUBWATERSHED	161,763	3.71	4.215	706	264,260	10.78	30,977			\$529,045	13.8%
1 Bridgeton Police Department											
Bioretention systems	24,478	0.56	0.638	107	1,759	0.92	3,200	5	SF	\$16,000	30.4%
Total Site Info	24,478	0.56	0.638	107	1,759	0.92	3,200			\$16,000	30.4%
2 Bridgeton Post Office											
Bioretention system	1,290	0.03	0.034	6	2,469	0.09	325	5	SF	\$1,625	2.0%
Pervious pavement	10,925	0.25	0.285	48	20,887	0.79	1,950	25	SF	\$48,750	16.8%
Total Site Info	12,215	0.28	0.318	53	23,356	0.88	2,275			\$50,375	18.8%
3 Buckshutem Road School											
Bioswale	5,000	0.11	0.130	22	9,560	0.36	1,000	5	SF	\$5,000	1.6%
Rainwater harvesting	2,430	0.06	0.063	11	4,645	0.17	2,000	2	gal	\$4,000	0.8%
Total Site Info	7,430	0.17	0.194	32	14,205	0.53	3,000			\$9,000	2.4%
4 Cherry Street School											
Bioretention system	5,215	0.12	0.136	23	9,971	0.37	1,304	5	SF	\$6,520	3.4%
Pervious pavement	10,095	0.23	0.263	44	19,298	0.73	1,803	25	SF	\$45,075	6.6%
Total Site Info	15,310	0.35	0.399	67	29,269	1.10	3,107			\$51,595	10.0%
5 Cohanzick Zoo											
Bioretention system	1,525	0.04	0.040	7	2,917	0.11	295	5	SF	\$1,475	1.2%
Total Site Info	1,525	0.04	0.040	7	2,917	0.11	295			\$1,475	1.2%
6 John Wesley United Methodist Church											
Bioretention systems	2,820	0.06	0.073	12	5,394	0.20	705	5	SF	\$3,525	9.1%
Pervious pavement	12,665	0.29	0.330	55	24,216	0.91	2,260	25	SF	\$56,500	40.9%
Total Site Info	15,485	0.36	0.403	68	29,610	1.11	2,965			\$60,025	50.0%
7 Sunset Lake											
Bioretention system	2,600	0.06	0.068	11	4,975	0.19	650	5	SF	\$3,250	5.5%
Total Site Info	2,600	0.06	0.068	11	4,975	0.19	650			\$3,250	5.5%

Summary of Proposed Green Infrastructure Practices

Subwatershed/Site Name/Total Site Info/GI Practice	Potential Management Area		Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Max Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cfs)	Size of BMP (SF)	Unit Cost (\$)	Unit	Total Cost (\$)	I.C. Treated %
	Area (SF)	Area (ac)									
8 The Parish of the Holy Cross											
Bioretention systems	1,150	0.03	0.030	5	2,199	0.08	290	5	SF	\$1,450	0.9%
Pervious pavement	72,770	1.67	1.896	317	139,147	5.23	12,995	25	SF	\$324,875	59.7%
Total Site Info	73,920	1.70	1.926	322	141,346	5.31	13,285			\$326,325	60.6%
9 Veterans Memorial Park											
Bioretention system	800	0.02	0.021	3	1,526	0.06	200	5	SF	\$1,000	1.7%
Total Site Info	800	0.02	0.021	3	1,526	0.06	200			\$1,000	1.7%
10 West Avenue School											
Bioswale	8,000	0.18	0.208	35	15,297	0.57	2,000	5	SF	\$10,000	4.6%
Total Site Info	8,000	0.18	0.208	35	15,297	0.57	2,000			\$10,000	4.6%
INDIAN FIELDS BRANCH / JACKSON RUN SUBWATERSHED	137,610	3.16	3.585	600	263,134	9.89	29,500			\$431,525	9.5%
11 Bethany Seventh Day Adventist											
Bioretention system	835	0.02	0.022	4	1,593	0.06	210	5	SF	\$1,050	12.7%
Pervious pavement	2,425	0.06	0.063	11	4,638	0.17	435	25	SF	\$10,875	37.0%
Total Site Info	3,260	0.07	0.085	14	6,232	0.23	645			\$11,925	49.7%
12 Bridgeton Assembly of God											
Bioretention systems	18,215	0.42	0.475	79	34,832	1.31	4,555	5	SF	\$22,775	26.0%
Total Site Info	18,215	0.42	0.475	79	34,832	1.31	4,555			\$22,775	26.0%
13 Bridgeton Chamber of Commerce											
Bioretention system	335	0.01	0.009	1	643	0.02	85	5	SF	\$425	6.6%
Total Site Info	335	0.01	0.009	1	643	0.02	85			\$425	6.6%
14 Bridgeton Library and Fire Department											
Rainwater harvesting	1,570	0.04	0.041	7	3,000	0.11	1,225	2	gal	\$2,450	3.5%
Total Site Info	1,570	0.04	0.041	7	3,000	0.11	1,225			\$2,450	3.5%

Summary of Proposed Green Infrastructure Practices

Subwatershed/Site Name/Total Site Info/GI Practice	Potential Management Area		Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Max Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cfs)	Size of BMP (SF)	Unit Cost (\$)	Unit	Total Cost (\$)	I.C. Treated %
	Area (SF)	Area (ac)									
15 Bridgeton Medical Arts Building											
Bioretention system	1,290	0.03	0.034	6	2,469	0.09	325	5	SF	\$1,625	2.2%
Pervious pavement	31,080	0.71	0.810	136	59,429	2.23	5,550	25	SF	\$138,750	52.2%
Total Site Info	32,370	0.74	0.843	141	61,898	2.32	5,875			\$140,375	54.4%
16 Community Health Care											
Bioretention system	635	0.01	0.017	3	1,212	0.05	160	5	SF	\$800	3.7%
Pervious pavement	2,980	0.07	0.078	13	5,701	0.21	535	25	SF	\$13,375	17.3%
Total Site Info	3,615	0.08	0.094	16	6,912	0.26	695			\$14,175	21.0%
17 Indian Avenue School											
Bioretention system	400	0.01	0.010	2	763	0.03	100	5	SF	\$500	0.2%
Pervious pavement	15,520	0.36	0.404	68	29,677	1.12	2,770	25	SF	\$69,250	9.1%
Total Site Info	15,920	0.37	0.415	69	30,440	1.15	2,870			\$69,750	9.3%
18 Rutgers Food Innovation Center											
Bioretention system	6,210	0.14	0.162	27	11,872	0.45	1,555	5	SF	\$7,775	9.3%
Pervious pavement	11,415	0.26	0.297	50	21,830	0.82	2,040	25	SF	\$51,000	17.1%
Total Site Info	17,625	0.40	0.459	77	33,702	1.27	3,595			\$58,775	26.4%
19 South Avenue and Willow Street Triangle											
Bioretention system	22,500	0.52	0.586	98	43,020	1.62	5,625	5	SF	\$28,125	95.0%
Total Site Info	22,500	0.52	0.586	98	43,020	1.62	5,625			\$28,125	95.0%
20 South Jersey Extended Care											
Bioretention system	5,100	0.12	0.133	22	9,755	0.37	1,275	5	SF	\$6,375	4.0%
Pervious pavement	17,100	0.39	0.446	75	32,699	1.23	3,055	25	SF	\$76,375	13.6%
Total Site Info	22,200	0.51	0.578	97	42,455	1.60	4,330			\$82,750	17.6%