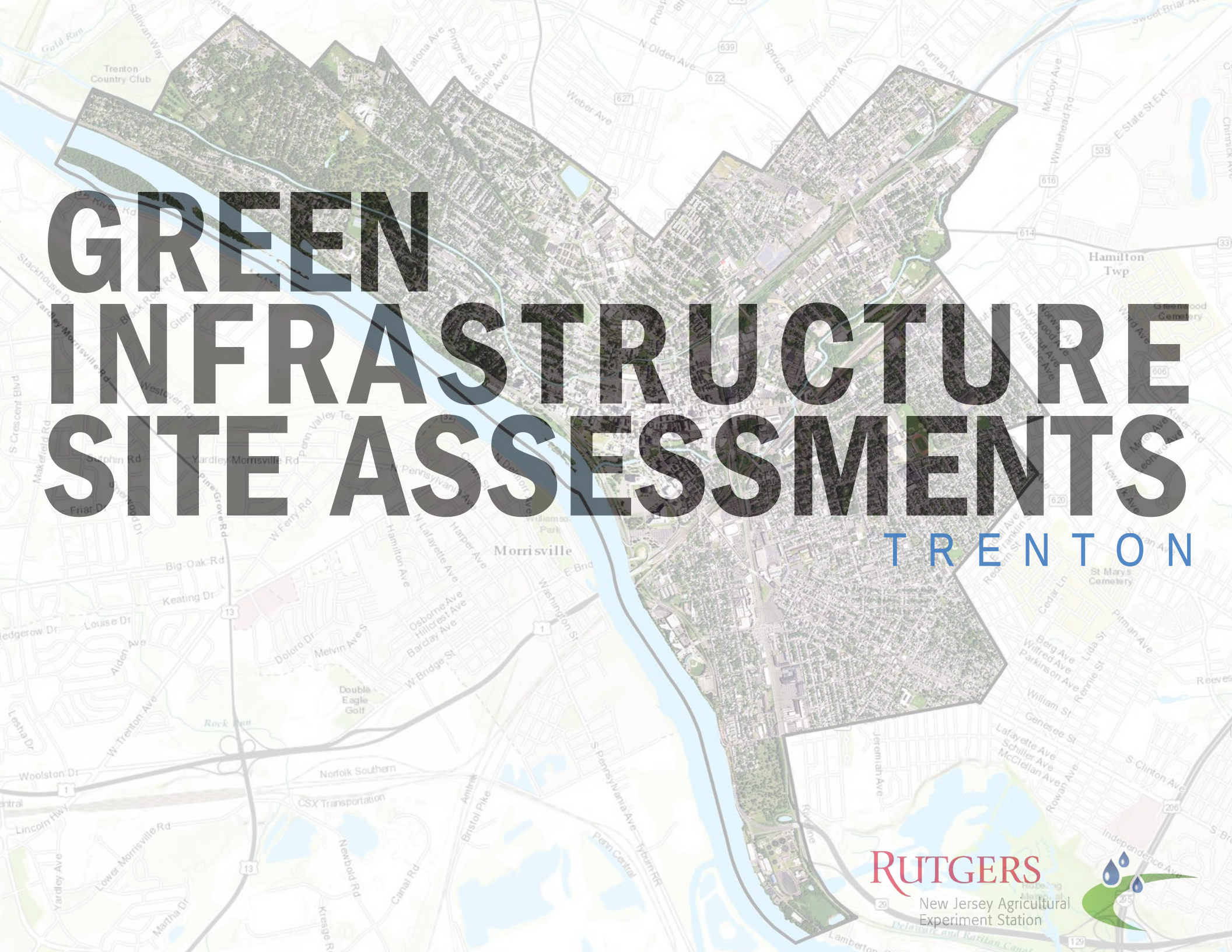


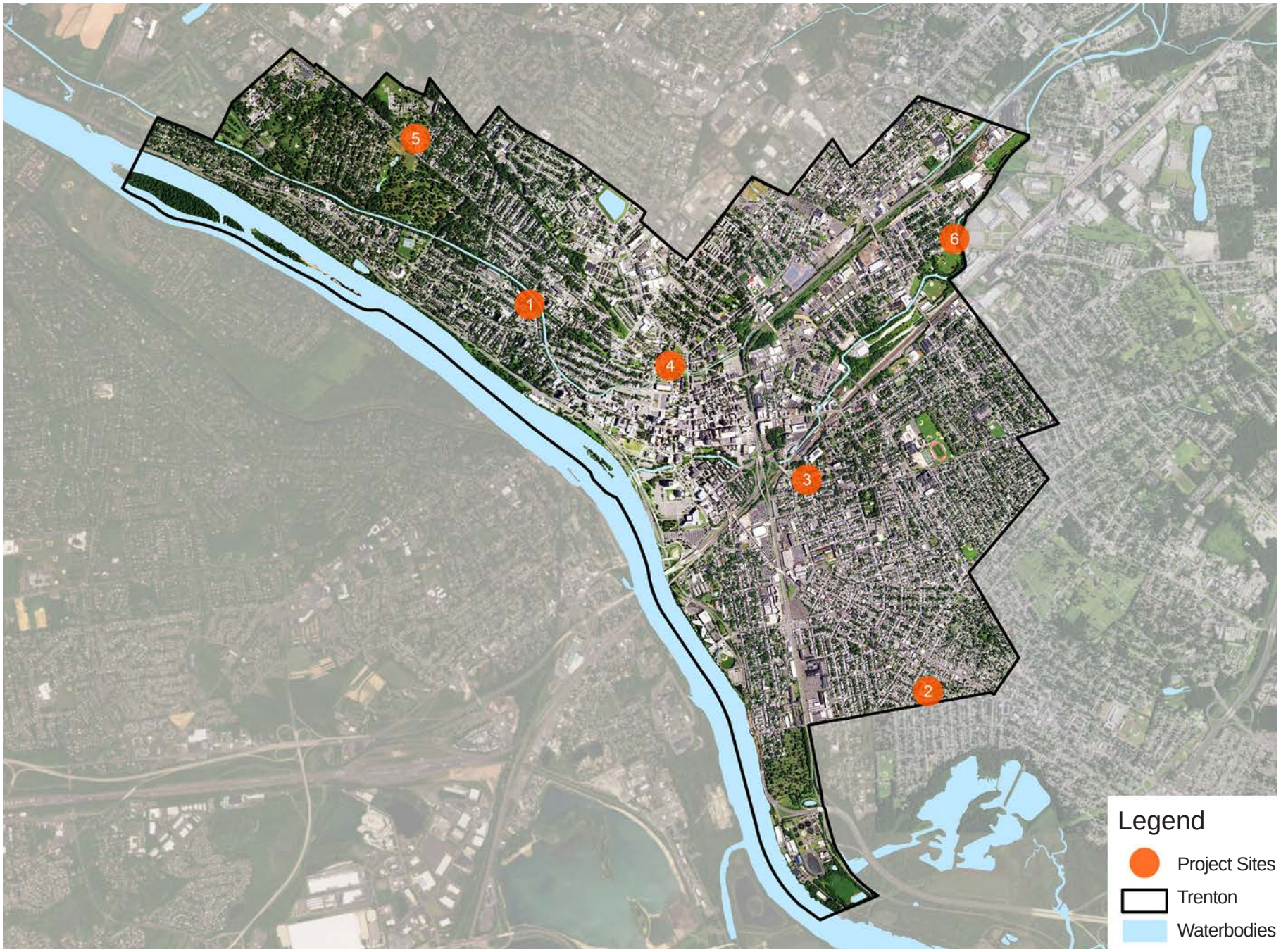
GREEN INFRASTRUCTURE SITE ASSESSMENTS

TRENTON

RUTGERS
New Jersey Agricultural Experiment Station

POTENTIAL PROJECT SITES
WITHIN STUDY AREA

Site	Name	Address	Page #
1	Edgewood Avenue Playground	Edgewood Avenue, Trenton, NJ 08618	4
2	Grace A. Dunn Middle School	401 Dayton Street, Trenton, NJ 08618	6
3	Greenwood Avenue Farmers Market	427 Greenwood Avenue, Trenton, NJ 08618	8
4	Isles Office-Tucker Street	33 Tucker Street, Trenton, NJ 08618	10
5	Joyce Kilmer Elementary School	1300 Stuyvesant Avenue, Trenton, NJ 08618	12
6	Mulberry Street and Nottingham Way	Mulberry Street and Nottingham Way, Trenton, NJ 08618	16


5
1
4
6
3
2
Legend
Project Sites
Trenton
Waterbodies

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

0' 20' 40'

EDGEWOOD AVENUE PLAYGROUND

Edgewood Avenue
Trenton, NJ 08618

Roof runoff can be captured by installing a rain garden adjacent to the building. Rain gardens can capture, treat, and infiltrate stormwater runoff. The basketball court on the site is in moderate condition. The court can be converted to porous asphalt to capture and treat 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	From the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
45.08	28,954	1.4	14.6	132.9	0.023	0.79

Recommended 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	0.046	8	3,366	0.13	470	$2,350
Pervious pavement	0.150	25	10,981	0.41	4,260	$106,500

bioretention system

pervious pavement

drainage area

property line

2015 Aerial: NJOIT, OGIS

0' 50' 100'

Roof runoff can be captured by installing rain gardens adjacent to the building. Rain gardens can capture, treat, and infiltrate stormwater runoff. The parking lot in the rear of the building is in poor condition. The lot can be converted to porous asphalt to capture and treat 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	From the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
42.09	136,316	6.6	68.8	625.9	0.106	3.74

Recommended 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	0.453	76	33,256	1.25	4,280	$21,400
Pervious pavement	0.405	68	29,688	1.12	2,505	$62,625

pervious pavement

depave / green

drainage area

property line

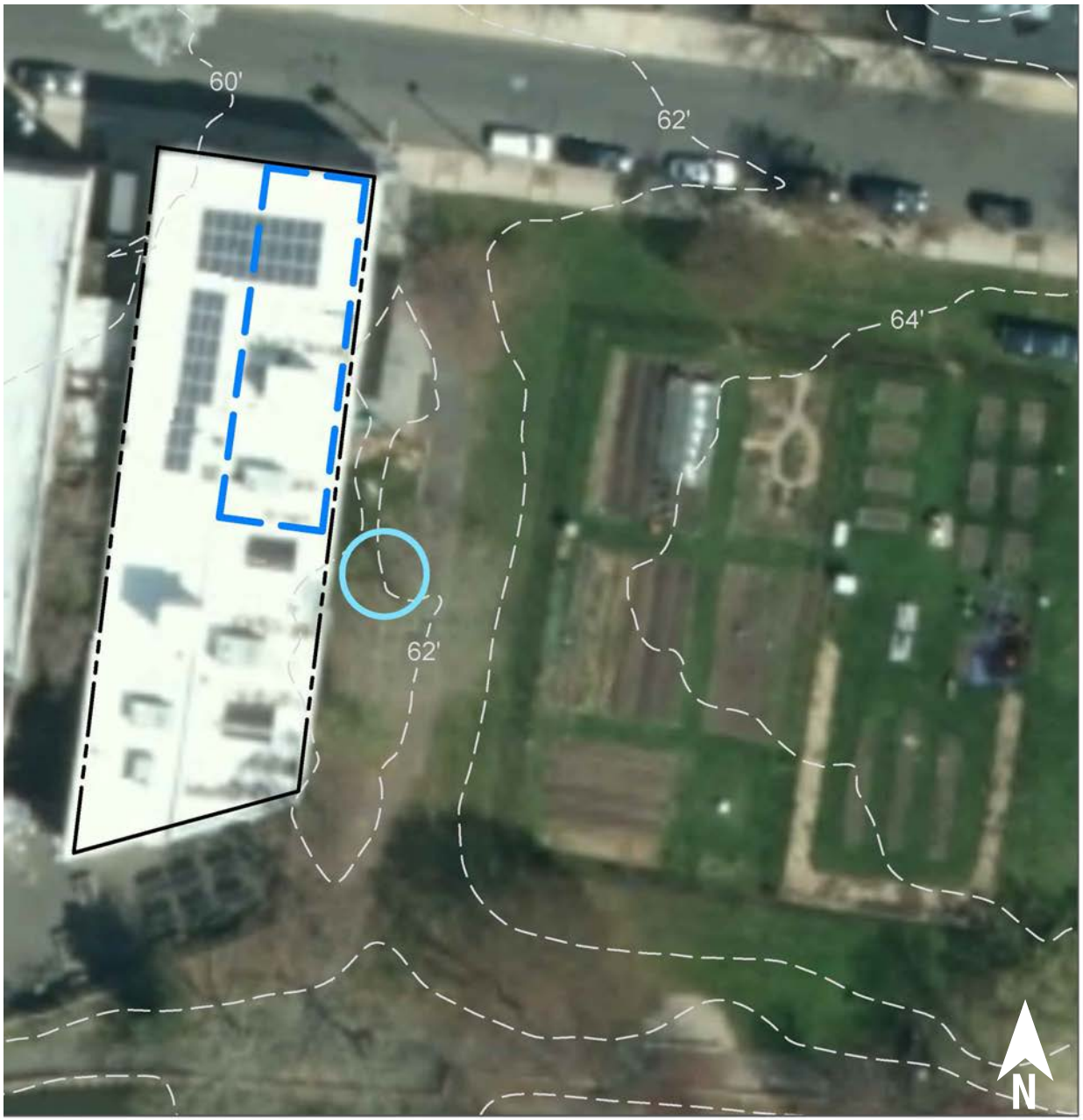
2015 Aerial: NJOIT, OGIS

0' 30' 60'

This parking lot is currently used as a farmers market. The outer parking spaces in the lot can be converted to porous asphalt to capture and treat stormwater runoff. This will allow space for vendors to drive and park their vehicles. The center of the site can be depaved and greened to decrease stormwater runoff and provide a suitable location for farmers market festivities. 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	From the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
85.00	37,677	1.8	19.0	173.0	0.029	1.03

Recommended 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
Pervious pavement	0.506	85	37,138	1.40	14,365	$71,825
Depave / green	0.567	95	41,641	1.57	19,550	$488,750



rainwater harvesting

drainage area

property line

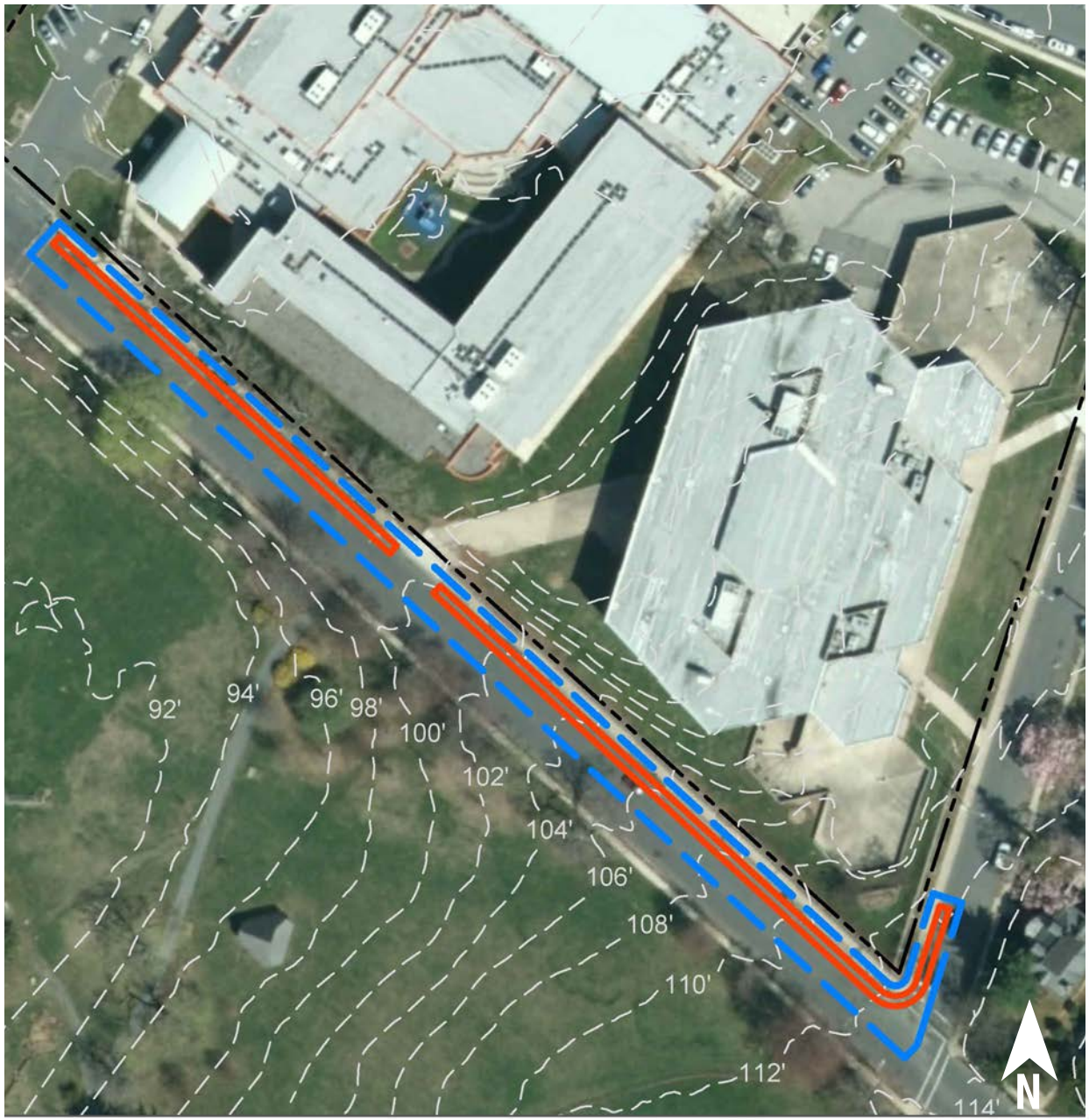
2015 Aerial: NJOIT, OGIS

0' 20' 40'

This site is the location of Isle's Tucker Street office and community garden. Roof runoff currently drains directly to the local sewer system via connected downspouts. These downspouts can be disconnected and directed into a cistern. The water collected by this cistern can be used for watering plants in the adjacent garden.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	From the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
90.00	7,332	0.4	3.7	33.7	0.006	0.20

Recommended 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 (gal)	Estimated Cost
Rainwater harvesting	0.527	88	38,664	1.45	2,000	$4,000



stormwater planter

drainage area

property line

2015 Aerial: NJOIT, OGIS

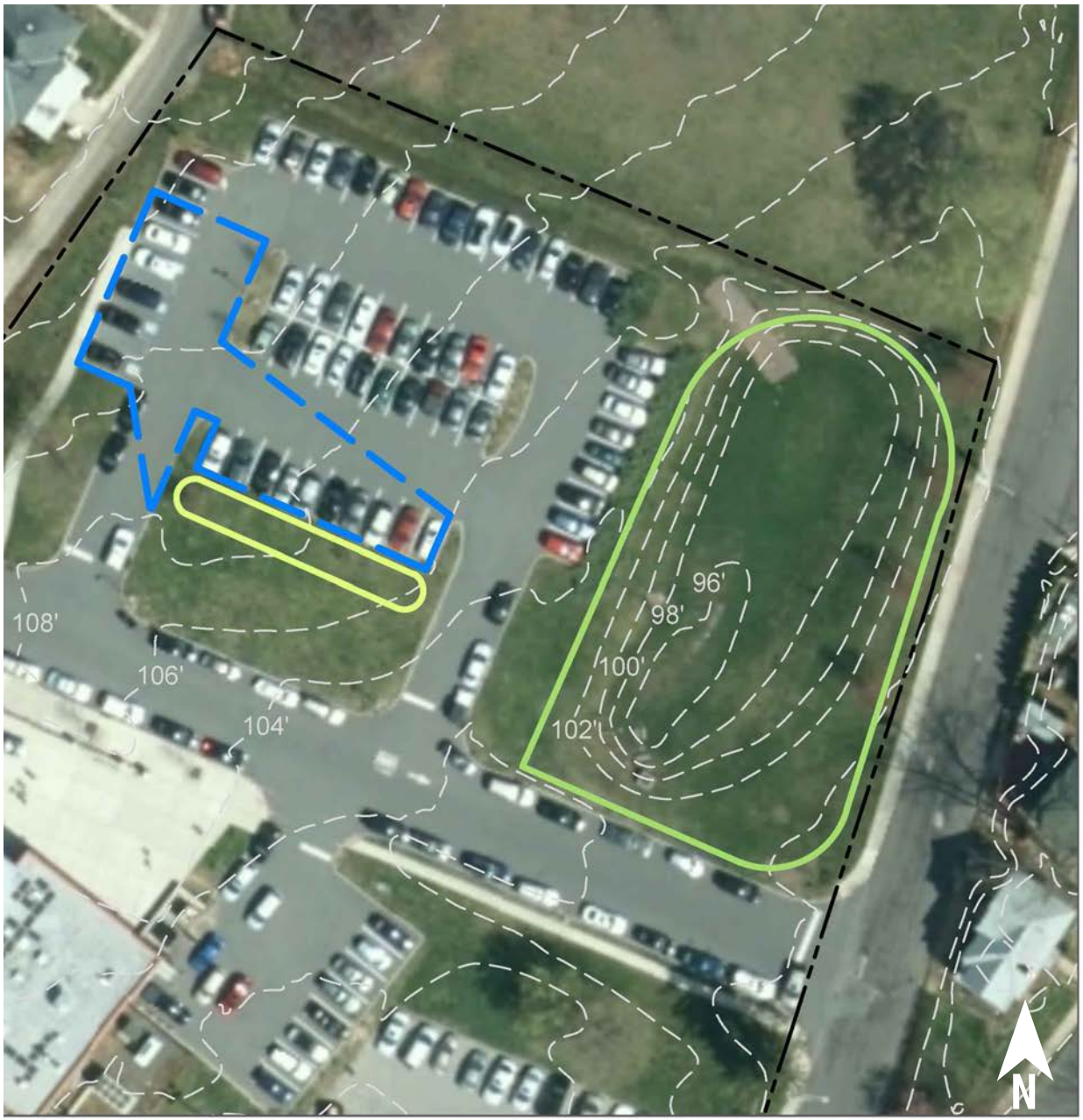
0' 50' 100'



Stormwater is currently draining towards the northwest corner of the site. Stormwater planters and curb bumpouts can be installed along the sidewalk adjacent to the school. The stormwater planters and curb bumpouts will capture and treat stormwater runoff and promote a safer pedestrian environment. 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	From the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
65.61	239,914	11.6	121.2	1,101.5	0.187	6.58

Recommended 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
Stormwater planters	0.507	85	37,168	1.40	4,235	$423,500



bioretention system

detention basin retrofit

drainage area

property line

2015 Aerial: NJOIT, OGIS

0' 30' 60'

Stormwater is currently draining from west to east across the site. A rain garden can be installed in the adjacent parking island to capture, treat, and infiltrate stormwater runoff from the adjacent parking lot. The nearby stormwater detention basin can be retrofited to 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	From the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
65.61	239,914	11.6	121.2	1,101.5	0.187	6.58

Recommended 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	0.169	28	12,424	0.47	1,220	$6,100
Detention Basin Retrofit	TBD	TBD	TBD	TBD	19,000	$10,000

wetland park

property line

2015 Aerial: NJOIT, OGIS

0' 50' 100'

MULBERRY STREET AND NOTTINGHAM WAY

Mulberry Street and Nottingham Way
Trenton, NJ 08618

This one and a quarter acre vacant green space can be developed into a wetland park to provide flood storage. This will provide opportunities for passive recreation and education while also helping to alleviate impacts of creek flooding. A preliminary soil assessment suggests that the soils have suitable drainage characteristics for green infrastructure.

Recommended 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
Wetland park	TBD	TBD	TBD	TBD	55,110	TBD